

EXHIBIT A



Department of Energy
National Nuclear Security Administration
MOX Project Management Office
Savannah River Site
P.O. Box A
Aiken, South Carolina 29802



October 25, 2018

Mr. Rex Norton
Vice President, Contracts and Supply Chain Management
CB&I AREVA MOX Services, LLC
Savannah River Site
P.O. Box 7097
Aiken, SC 29804-7097

SUBJECT: Contract DE-AC02-99CH10888, Contracting Officer's Final Decision – Disallowance of Costs for Electrical Rework

Reference: (1) MOX Services letter DCS-DOE-004858, dated March 27, 2015
(2) OIG File No. 15-0061-C, Allegation of Waste of Department Funds at Mixed Oxide Fuel Fabrication Facility (MFFF) dated December 3, 2014
(3) NNSA Letter NA-APM-17-0159, dated March 29, 2017
(4) MOX Services letter DCS-DOE-005641, dated April 26, 2017
(5) NNSA Assessment Report, "IG Allegation Regarding Potentially Non-compliant Electrical Installation", dated January 27, 2015

Dear Mr. Norton:

The National Nuclear Security Administration ("NNSA") has carefully reviewed and considered CB&I AREVA MOX Services, LLC ("MOX Services") response (Reference 1) to the allegations contained in the Office of Inspector General (OIG) Management Referral (Reference 2) which preceded NNSA's Notice of Intent to Disallow Costs of Certain Electrical Commodities (Reference 3) and MOX Services' response (Reference 4).

In order to fully consider the issues identified in its initial assessment (Reference 5) and in light of MOX Services' response thereto, NNSA conducted a follow up assessment¹ focusing on rooms D104 and D106, which represented the location of the bulk of alleged electrical noncompliance. The findings contained within the follow-up assessment confirmed those identified in the initial assessment.

Background:

NNSA's was notified of the Contractor's actions by a management referral received from the Office of Inspector General (OIG) on December 3, 2014. The referral identified the following details:

¹ Internal Follow-up Assessment Report, "IG Allegation Regarding Potentially Noncompliant Electrical Installation", MOX-AR-18-0109, dated June 29, 2018

“Electrical work occurring as part of the construction of the Mixed Oxide Fuel (MOX) Facility is not being completed to policy specifications. This is causing the work to be repeatedly removed and installed again, resulting in waste of Department of funds. Specifically, cable trays and conduit are not being correctly installed.”

NNSA conducted an assessment following the management referral (Reference 5). The assessor was an NNSA employee and subject matter expert in electrical engineering and installation. The assessment ultimately concluded that “...the allegations are substantiated. Specifically, that electrical materials must be ‘repeatedly removed and installed again, resulting in a waste of Department funds.’”.

Based on this assessment and subsequent analysis, NNSA issued a Notice of Intent (NOI) to Disallow Costs (Reference 3) in the amount of \$526,895² pursuant to contract clause Federal Acquisition Regulations (FAR) -- Notice of Intent to Disallow Costs (APR 1984). The NOI found that MOX Services “...(i) failed to follow its requisite procedures that would have ensured the work in question met contractual quality requirements, (ii) knew or should have known of this failure, and (iii) knew or should have known that this failure would require it to repair, remove, replace, and take other associated corrective actions related to the work in question.”

MOX Services responded to the NOI via Reference (4), and objected to the NOI for several reasons, which are described below.

First, MOX Services opined that “The determination of allowability must be based on FAR 31.205-26”, rather than FAR 31.201-3. However, the cost principle referenced has no applicability to NNSA’s NOI. FAR 31.205-26 – Material Costs – relates to “...costs of such items as raw materials, parts, sub-assemblies, components, and manufacturing supplies, whether purchased or manufactured by the contractor, and may include such collateral items as inbound transportation and intransit insurance.” The costs in question in NNSA’s NOI are for construction costs, not material costs. Thus, MOX Services’ objection is without merit.

Second, MOX Services opined that “To disallow costs incurred for rework, NNSA must show that MOX Services intentionally disregarded project requirements.” This is simply not true. There is nothing in the Contract that conditions NNSA’s recovery of unallowable costs on MOX Services’ intentionally disregarding project requirements. The applicable parts of the Contract are discussed in NNSA’s NOI, and in the Determination section herein.

Finally, MOX Services opined that the NOI allegedly inadequately describes how the \$526,895 was calculated. This objection is baseless for two primary reasons:

- First, in letter NA-APM-17-0203, dated May 31, 2017, NNSA reminded MOX Services that the relevant section of the FAR requires a notice of intent to disallow to “Describe the costs to be disallowed, including estimated dollar value by item and applicable time periods, and

² NNSA letter NA-APM-17-0203 dated May 31, 2017 provided a detailed breakdown of costs to be disallowed.

state the reasons for the intended disallowance”³. This letter pointed out that NNSA met and exceeded the FAR requirements by providing not only the unallowable cost by item⁴, but also MOX Services’ own Nonconformance Report (NCR) and Condition Report (CR) numbers related to the costs in question. Nonetheless, despite having already exceeded the applicable notification requirements, NNSA, in a show of good faith, provided additional details regarding the calculation of the \$526,895. This included the exact number of labor hours (4,567), craft labor costs (\$205,515), material costs (\$183,685), and level of effort labor costs (\$137,695).

- Second, MOX Services has repeatedly acknowledged that it is unable to track its costs at the same level it now demands NNSA to articulate. For instance, in letter DCS-DOE-006135, dated September 12, 2018, MOX Services states that “MOX Services acknowledges that the program, processes and procedures that were in place at the time of the assessment provide inconsistent guidance for what should be considered ‘rework’”. In the same letter, MOX Services commits to taking 7 specific corrective actions and revising 2 of its internal process documents to address its failures to track and report full cost and schedule impacts of rework. The number of individuals in MOX Services’ project controls department is multiple times larger than the entire NNSA Project Management Office assigned to oversee the MOX Project and, detailed collection and reporting of Contract costs is MOX Services’ responsibility, not NNSA’s. Thus, MOX Services’ attempt to invalidate the Notice of Intent by imposing upon NNSA a contractual obligation it does not bear, and which MOX Services itself bears but is unable to perform, is without merit.

Determination:

After receiving MOX Services’ response to the NOI, NNSA undertook a supplementary assessment of the rework issue. This assessment confirmed NNSA’s previous assessment and NOI, and provided more insight into the unreasonable nature of the costs in question. These matters are summarized below, along with the Contracting Officer’s Final Decision (COFD).

The information in the table below is derived from select MOX Services’ Condition Reports (CR) and Non-Conformance Report (NCR). These reports demonstrate that MOX Services determined self-imposed schedule pressure to be the root cause of the nonconforming electrical work in question. The quotes shown from each document are from the “cause” descriptions of their respective documents which are prepared by MOX Services’ construction or quality personnel, and approved by MOX Services’ management. The “Phase 1 Initiative”⁵ and deadlines mentioned are not required by, or specifically tied to, the Contract. Rather, they were arbitrarily imposed by MOX Services’ management on its craft workers, with no benefit, and at great cost, to NNSA.

³ FAR 42.801(c)(3)

⁴ All costs were applicable for construction of the MOX Fuel Fabrication Facility, and thus applicable only to Contract Line Item 0002.

⁵ The purpose of the Phase 1 Initiative was to provide permanent power to the MFFF, which would preclude the use (and cost) of temporary power. This was scheduled to be completed in December 2013. Due to a confluence of performance failures, and despite having received an additional \$1.7B in funding under the Contract in the meantime, permanent power is still not in place 5 years after scheduled completion.

Reference Document	Occurrence	Quote ⁶
CR-14-006	Wrong cable type used in pull	“ The work was being performed with a deadline of 31 Aug 13.... [craft personnel] could not find the correct type of cable...decision was made to install an electrical equivalent..were told that an NCR needed to be written..did not follow up and initiate the NCRs.”
CR-14-390	Cable tray modified (damaged) so it would fit. Procedure violation.	“However, this was done during the Phase 1 Electrical work and it is believed that the grinding was performed to expedite installation”
NCR-14-5877	Cable tray modified (damaged) so it would fit. Procedure violation.	“Rather than to remove the left side clips on these supports and shift them to facilitate proper installation per design drawings, Site Procedure and Specification, a short cut was taken ”

After MOX Services failed to execute, and ultimately abandoned, the Phase 1 Initiative, it changed the design for rooms 104 and 106. This change was was not related to any contractual direction from NNSA nor any change to Contract requirements. Moreover, this late-in-the-game design change required numerous previously-installed cable trays and associated supports to be (i) removed due to the trays and supports being deleted from the design⁷; (ii) removed and reinstalled due to the design change regarding the required cable tray size⁸; and/or (iii) removed due to interference with other commodities⁹.

This effort demonstrated two problems. First, cable trays should not have been scheduled for installation without MOX Services ensuring supports were both installed and designed, neither of which it did. Second, the cable trays were ultimately removed, and the field-installed supports were later taken down. However, had MOX Services’ design been adequate at the time of the Phase 1 Electrical Initiative, MOX Services would not have wasted the man-hours, materials, and other resources used to install and later remove the cable trays and associated supports. This removal activity is a failure of management for two reasons: (i) management is responsible for properly identifying and scheduling all required installation activities, which it failed to do, and (ii) it is management’s responsibility to be aware of obvious and fundamental deficiencies and to correct accordingly – not continue to install knowing that the installation would need to be removed.

⁶ Emphasis added.

⁷ E.g., Cable Tray TKN106D15 and TLN106D13 in Room D-106

⁸ E.g., Cable Tray TKN106D01, TKN106D02, TKN106D03 and TKN106D03 in Room D-106

⁹ E.g., Cable Tray TKN106D08 in Room D-106

Similar failures occurred with the installation of Air Conditioning (AC) Units HVV-ACU0160, ACU0161, ACU0162, and ACU0163 in Rooms D104 and D106. A responsible Contractor would have ensured these units and associated supports were installed before the installation of the cable trays in each room. Instead, MOX Services installed the AC units and supports after the cable trays. As a result, the following additional and wasteful activities were required to work around MOX Services' improperly sequenced AC Unit installation:

- Specialized AC Unit mock-ups had to be fabricated to determine if installation was physically possible without removing commodities
- Special platforms were installed on top of the switchgears
- Specialized rigging was required since the embed plates intended for use as attachment points were inaccessible due to "the number of installed commodities"¹⁰. This required additional engineering calculations to be performed for the utilization of existing supports.

Had the AC units been installed in the correct sequence, these additional activities would not have been required. MOX Services failed to identify and schedule all activities required for the AC units' installation and failed to identify proper construction sequencing.

Similar failures occurred in MOX Services' engineering and project management organizations related to its "Design Freeze" list, issued on 13 March 2013 (3 months prior to the Phase 1 Electrical Initiative). In this list, room D104 was classified as green, which means "room coordination complete and any significant action items have been resolved." D106 was classified as blue, which means "room coordination review is complete but action items are in the process of being resolved." Also, the column for "Electrical Cable Routing Design Complete, Cable Diagrams issued IFC" indicated "Yes" for D104 but "No" for D106. This demonstrates that D106 was not "frozen" and therefore MOX Services' own internal document showed no Cable should be installed during the Phase 1 Electrical Initiative in that room.

MOX Services did not follow its own work procedures; instead, it scheduled electrical commodity installation in room D106 when its own documents showed the design for that room was still in flux. This demonstrates poor performance and lack of best efforts because MOX Services had tools in place showing the room was not ready for efficient construction; but, MOX Services' management nevertheless chose to ignore these tools and waste taxpayer funds by heedlessly proceeding with this effort.

Similar failures occurred in MOX Services' management of construction planning and scheduling. Specifically, most of the construction activity for Phase 1 Energization was located in rooms D104 and D106. MOX Services' Integrated Project Schedule (IPS) for these rooms in place at the time of the Phase 1 Energization Initiative and a later version are summarized below.

¹⁰ MOX Services Field Condition Report (FCR) 006509

IPS Version	D104/D106 Total Number of Activities	Activities with Predecessor(s) AND Successor(s)	Activities with Neither Predecessor(s) NOR Successor(s)	D104/D106 Total Duration
May 2012	74	3 (4.1%)	58 (78.4%)	Sept 2010-June 2014 (~3 years 10 months)
December 2017	870	870 (100%)	0	Jan 2010-April 2024 (~14 years 4 months)

At the time of Phase 1 Energization, only 4.1% of the D104/D106 activities had both a successor and a predecessor, compared to 100% currently¹¹. The total task durations, for the same ultimate functional requirements in the same rooms, increased from less than 4 years to over 14 years. The total number of activities included in the schedule has increased ten-fold. These facts clearly demonstrate that MOX Services did not understand its own scope of work for these two rooms at the time it performed work related to Phase 1 Energization. Performing any work at all in these rooms when the schedule was so plainly inadequate demonstrates (i) a failure on the part of MOX Services' management; (ii) a lack of best efforts, and a (iii) lack of good faith, which are all contrary to the Contract.

There are several reasons NNSA concludes in this COFD that the costs in question are unallowable under the Contract. Each of these reasons is sufficient on its own to reach the same conclusion, but are described separately below for comprehensiveness.

First, MOX Services failed to use its best efforts to perform in an efficient and effective manner as required by the Contract. Section B.1(a) of the Contract requires:

The Contractor shall, in accordance with the terms of this contract, provide the personnel, facilities, equipment, materials and services (except as may be furnished by the Government), and otherwise do all things necessary for, or incident to providing its best efforts so as to carry out in an efficient and effective manner the necessary and related work to accomplish the requirements of the Base Contract and Option 1...

As described above, there are numerous instances that demonstrate MOX Services failed to use its best efforts as required by the Contract. These include:

- Imposing on its craft workers an arbitrary deadline not required by or specifically tied to the Contract, with no benefit, and at great cost, to NNSA.
- By its own admission, (i) installing the wrong type of cable due to the arbitrary deadline (reference CR-14-006); and (ii) damaging installed work products to "expedite installation" (CR-14-390) or take a "short cut" (NCR-14-5877).
- Failing to properly identify and schedule all required installation activities, and failure to be aware of this obvious and fundamental deficiency, and instead continuing to install when management knew or should have known that all of this installation would need to be removed.

¹¹ The lack of predecessors and successors for the majority of the activities also violates the guidelines set forth in MOX Services' document PMCSD-01

- Lack of engineering and project management that caused numerous previously-installed cable trays and associated supports to be (i) removed due to being deleted from the design; (ii) removed and reinstalled due to design changes regarding the required cable tray size; and/or (iii) removed due to interference with other commodities.
- Installing the AC units and supports after the cable trays, which is the opposite of the correct installation sequence. This resulted in additional unnecessary and wasteful activities to work-around MOX Services' improperly sequenced AC Unit installation
- Failing to follow its own work procedures by scheduling electrical commodity installation in room D106 when its documents showed the design for that room was still in flux and not ready for efficient construction. Instead of adhering to its own documents and processes, MOX Services' management chose to ignore these tools and waste taxpayer funds in proceeding with this effort
- Failing to understand its own scope of work for the two rooms (D104 and D106) at the time of the Phase 1 Energization, and performing any work at all in these rooms when the schedule was plainly inadequate

Second, MOX Services performed the work in question with a lack of good faith. Contract clause H.14 states in pertinent part:

H.14 – Responsibility of the Contractor for Errors or Deficiencies.

(a) The Contractor shall use its best efforts to ensure the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished under this contract.

(b) The Contractor shall use its best efforts to ensure the correction or revision of any errors or deficiencies in the designs, drawings and other services furnished under this contract, and making any necessary replacements. Except as provided in paragraph (c) below, the allowability of the cost of any such correction, revision or replacement shall be determined as provided in the clause of this contract entitled "Allowable Costs and Payment , DEAR 952.216-7 Alternate II, and FAR 52.216-7 ," but no additional fee shall be payable with respect thereto...

(c) Notwithstanding the provisions of paragraph (b) above, the Government may, at any time, require the Contractor to remedy by correction, revision or replacement, without cost to the Government, any errors or deficiencies in the designs, drawings and other services furnished under this contract if such errors or deficiencies are due to fraud, lack of good faith, or willful misconduct...

As described above, there are numerous instances that demonstrate MOX Services performed the work in question with a lack of good faith¹². These include:

- Imposing on its craft workers arbitrary deadlines not required by or specifically tied to the contract, with no benefit, and at great cost, to NNSA.
- By its own admission, (i) installing the wrong type of cable due to the arbitrary deadline (reference CR-14-006); and (ii) damaging installed work products to “expedite installation” (CR-14-390) or take a “short cut” (NCR-14-5877).
- Failing to properly identify and schedule all required installation activities, and failure to be aware of this obvious and fundamental deficiency, and instead continuing to install when management knew or should have known that all of this installation would need to be removed.
- Lack of engineering and project management that caused numerous previously-installed cable trays and associated supports to be (i) removed due to being deleted from the design; (ii) removed and reinstalled due to design changes regarding the required cable tray size; and/or (iii) removed due to interference with other commodities.
- Failing to follow its work procedures by scheduling electrical commodity installation in room D106 when its own documents showed the design for that room was still in flux and not ready for efficient construction. Instead of adhering to its own documents and processes, MOX Services’ management chose to ignore these tools and waste taxpayer funds in proceeding with this effort
- Failing to understand its own scope of work for the two rooms (D104 and D106) at the time of the Phase 1 Energization, and performing any work at all in these rooms when the schedule was plainly inadequate

Third, MOX Services failed to follow the terms of the Contract¹³. In addition to the aforementioned best efforts requirement, Section J.III.G.1.b of the contract requires:

The Contractor shall be responsible for planning, managing, and controlling all construction activities...

Furthermore, Section J.II.A.8 requires:

8. Constructability Review

The Contractor shall ensure that construction considerations are incorporated into the design activities. The Contractor shall incorporate the following basic constructability concepts in the development of preliminary and final designs:

- a. Designs and procurement schedules are construction-driven.
 - b. Designs are configured to enable efficient construction.
- [...]

¹² Additionally, NNSA cannot determine with certainty based on the limited information provided that MOX Services did not engage in fraud or willful misconduct.

¹³ FAR 31.201-2(a)(4) states: (a) The factors to be considered in determining whether a cost is allowable include the following: ... (4) Terms of the contract.

- d. Construction efficiency is considered in specification development.
[...]
- f. Designs promote construction accessibility of personnel, material, and equipment

As described above, there are numerous instances that demonstrate MOX Services failed to follow these terms of the Contract. In addition to the failure to provide best efforts, these instances include:

- Imposing on its craft workers arbitrary deadline not required by or specifically tied to the contract, which demonstrates failure to (i) plan, manage, and control all construction activities in a reasonable manner and (ii) ensure constructability is incorporated into designs.
- Installing the wrong type of cable due to the arbitrary deadline (reference CR-14-006); and damaging installed work products to “expedite installation” (CR-14-390) or take a “short cut” (NCR-14-5877), which demonstrates failure to plan, manage, and control all construction activities.
- Failing to properly identify and schedule all required installation activities, and failure to be aware of this obvious and fundamental deficiency, and instead continue to install when management knew or should have known that all of this installation would need to be removed, which demonstrates failure to plan, manage, and control all construction activities.
- Lack of engineering and project management that caused numerous previously-installed cable trays and associated supports to be (i) removed due to being deleted from the design; (ii) removed and reinstalled due to design changes of the required cable tray size; and/or (iii) removed due to interference with other commodities demonstrates. This demonstrates failure to (i) plan, manage, and control all construction activities in a reasonable manner and (ii) ensure constructability is incorporated into designs.
- Installing the AC units and supports after the cable trays, which is the opposite of the correct installation sequence, and resulted in additional unnecessary and wasteful activities were required to work-around MOX Services’ improperly sequenced AC Unit installation. This demonstrates failure to plan, manage, and control all construction activities.
- Failing to follow its work procedures by scheduling electrical commodity installation in room D106 when its documents showed the design for that room was still in flux and not ready for efficient construction, which demonstrates failure to (i) plan, manage, and control all construction activities and (ii) ensure constructability is incorporated into designs.
- Failing to understand its own scope of work for the two rooms (D104 and D106) at the time of the Phase 1 Energization, and performing any work at all in these rooms when the schedule was plainly inadequate, which demonstrates failure to (i) plan, manage, and control all construction activities and (ii) ensure constructability is incorporated into designs.

Finally, the costs are not reasonable as defined by the Contract. The FAR requires costs to be reasonable as a necessary condition for reimbursement¹⁴. A cost is reasonable if, “in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business”¹⁵ and that what is reasonable “depends upon a variety of considerations and circumstances, including -- (1) Whether it is the type of cost generally recognized as ordinary and necessary for the conduct of the contractor's business or the contract performance.”¹⁶

¹⁴ FAR 31.201-2(a)(1)

¹⁵ FAR 31.201-3(a)

¹⁶ FAR 31.201-3(b)

The Contractor performed work under the Contract related to certain electrical commodities without following its own procedures designed to ensure the work would meet Contract requirements. It knew or should have known that this failure would necessarily result in unsatisfactory work and subsequently require repair, removal, replacement, and other associated corrective actions. No “prudent person in the conduct of competitive business” would (i) develop detailed and stringent construction installation procedures for a nuclear facility, then fail to follow such procedures, perform unsatisfactory work, and thereafter remove and replace that work; (ii) develop work controls such as the design freeze process, then ignore those controls; and/or (iii) fail to perform basic planning and scheduling required to perform a contract and expect such rework costs to be at the expense of the Government. Moreover, the costs of repairs, removal, replacement, and other associated work attributable to these types of failure as described herein are not the types of cost “generally recognized as ordinary and necessary” to perform the contract, or to conduct to the Contractor’s business.

For all the reasons, discussed herein, the Government has determined that the previously incurred, invoiced, and reimbursed costs related to the rework described totals \$526,895. This amount was calculated using the Contractor’s rework logs as submitted to NNSA for discrete work, along with estimated material and level-of-effort/overhead costs based on reasonable assumptions from the Contractor’s basis of estimate (BOE) and actual cost experience. The Contractor was provided an opportunity to supplement this estimate with actual cost data from its accounting system but declined to do so.

In accordance with FAR Subpart 33.2 -- Disputes and Appeals, this matter is considered an issue in dispute. This letter constitutes the Contracting Officer’s Final Decision¹⁷ that the amount of \$526,895¹⁸ is determined unallowable and is considered a debt due to the Government.

This is the final decision of the Contracting Officer. You may appeal this decision to the agency board of contract appeals. If you decide to appeal, you must, within 90 days from the date you receive this decision, mail or otherwise furnish written notice to the agency board of contract appeals and provide a copy to the Contracting Officer from whose decision this appeal is taken. The notice shall indicate that an appeal is intended, reference this decision, and identify the contract by number.

¹⁷ This Contracting Officer’s Final Decision (COFD) is issued later than the 60-days period noted in subparagraph (a)(2) of the Notice of Intent to Disallow costs due to the continued gathering and validation of information contained in the initial assessment and MOX Services’ response via a follow up assessment. However, in accordance with the clause, “Failure to issue a notice under this Notice of Intent to Disallow Costs clause shall not affect the Government’s rights to take exception to incurred costs.” In other words, strict compliance with the clause does not obviate NNSA’s right to disallow costs under the contract, as here.

¹⁸ NNSA letter NA-APM-17-0203 dated May 31, 2017 provides detailed breakdown of costs to be disallowed.

R. Norton

October 25, 2018

With regard to appeals to the agency board of contract appeals, you may, solely at your election, proceed under the board's—

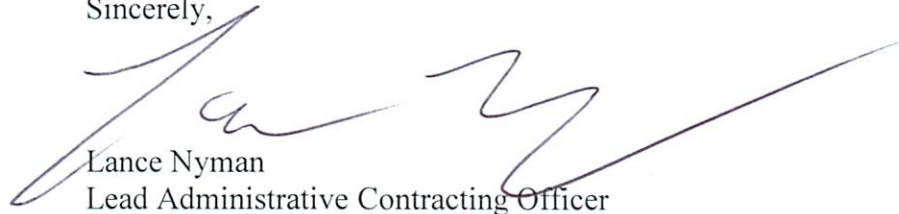
(1) Small claim procedure for claims of \$50,000 or less or, in the case of a small business concern (as defined in the Small Business Act and regulations under that Act), \$150,000 or less; or

(2) Accelerated procedure for claims of \$100,000 or less.

Instead of appealing to the agency board of contract appeals, you may bring an action directly in the United States Court of Federal Claims (except as provided in 41 U.S.C. 7102(d), regarding Maritime Contracts) within 12 months of the date you receive this decision.

If you have any questions or comments, please contact the undersigned at 803-952-2020.

Sincerely,



Lance Nyman
Lead Administrative Contracting Officer

NA-APM-18-0217

cc:

S. Cannon, NA-APM-1.4
S. Hamlett, NA-APM-1.4
A. Rischbieter, NA-APM-1.4
R. Leugemors, NA-APM-1.4
K. Buchanan, NA-APM-1.4
M.E. Noone, NNSA Counsel
D. Del Vecchio, MOX Services
G. Rousseau, MOX Services
P. Whittingham, MOX Services
K. Saunders, MOX Services
R. Ridgeway, MOX Services
MOXPMODCA@srs.gov

EXHIBIT B

Official Use Only

ASSESSMENT REPORT

IG Allegation Regarding Potentially Non-Compliant Electrical Installations

OBJECTIVE AND SCOPE

The purpose of this investigation was to determine whether and to what extent electrical materials must be "repeatedly removed and installed again, resulting in a waste of Department funds."

ASSESSMENT TEAM

Kim Sidey
NNSA Construction Team

REFERENCE

1. 'Allegation of Waste of Department Funds at the Mixed Oxide Fuel Facility (OIG File No. 15-0061-C)
2. 'Construction Rework, Definition, Reporting, and Assessment Desktop, revision 1'
3. MOX-AI-15-0020, Complete Investigation of IG Action 15-0061 Pertaining to Potentially Non-Compliant Electrical Work

ATTACHMENT

Interviewee Responses to Selected Questions

BACKGROUND

NNSA received a memorandum from the Office of the Inspector General (Ref. 1) stating a complaint as:

"Electrical work occurring as part of the construction of the Mixed Oxide Fuel (MOX) Facility is not being completed to policy specifications. This is causing the work to be repeatedly removed and installed again, resulting in waste of Department funds. Specifically, cable trays and conduit are not being correctly installed."

Equipment at MOX, including cable trays and conduit, is occasionally found to have been incorrectly installed or "not completed to policy specifications." When an installation is found to have been incorrectly installed it must be reworked. MOX procedure (Ref. 2) defines three distinct causes of 'rework,' where equipment that was installed must be removed and reinstalled. This is identified during acceptance inspections and is labelled as "non-conforming" until the non-conforming issue is corrected.

NNSA therefore agrees, and it is well established, that a portion of the allegation is true. Specifically, conduit and cable tray are being "...removed and installed again..." However, this assessment attempted to identify if cable tray and conduit was being "...repeatedly removed and installed again..." *because* of a motivation other than to complete work to "policy specifications."

Completing work to policy specifications involves the execution of work that has been planned, estimated, and scheduled in the project's execution plan. It requires the use of approved procedures and specifications, the integrated project schedule, trained individuals, and best practices. The use of approved procedures implies that work will be completed, meet requirements, and not require *repeated* rework (to be removed and reinstalled.) The use of a plan and a schedule implies that the sequence of work will be correct and will not interfere with future installations. If work is performed out of sequence it requires rework. Neglecting to use trained individuals and best practices would also lead to rework.

This report uses the word *requirements* interchangeably with "required policy specifications."

WORK FLOW AT MOX

A general description of work direction and approval authority is necessary to understand this assessment.

A Construction Manager at MOX directs a group of General Superintendents. General Superintendents are responsible for various disciplines, such as electrical, mechanical, and civil construction. General Superintendents either manage a direct work force or a subcontractor. Approximately a year ago, MOX signed a contract with Wise Electrical Contractors, LLC to provide electrical construction services. Wise implements

Official Use Only

Official Use Only

instructions through its project management to Superintendents that oversee general areas of work. Specific work crews (Journeyman and Apprentices) that work on specific tasks are supervised by Foremen.

The Construction Manager and his direct reports are charged to perform construction activities in accordance with approved work requirements. Another work group directs the activities that the construction group performs. This work group is the Project Management group and the electrical construction group interfaces with this group through the Area Project Manager (APM). The APM is required to report, and take necessary actions to reduce, rework in accordance with reference 2.

When work is completed at MOX it is reviewed and "accepted" by various groups. The first review is performed by the foreman. If the work meets requirements it is accepted by the foreman and then reviewed by the Construction Engineer. If the work is nuclear-safety-related (Quality Level 1) it is further reviewed and accepted by the Quality Division.

ASSESSMENT DEVELOPMENT

This assessment consisted of four parts. The first was a selection of electrical personnel that possessed an understanding of the project's construction processes and also had actually completed electrical installations. Both of these selection criteria were considered important because the allegation specified that the issue was with *installing* cable trays and conduit. During this part the assessor visited areas in the facility, where electrical work was in progress, and asked electrical personnel in the field the extent of their experience at the MOX facility. A list of individuals was developed by the assessor and consisted of seven individuals. This list included journeymen, foremen, superintendents, and a construction engineer.

The second part was to review electrical construction non-conformance reports (NCRs) and condition reports (CRs) that, in the opinion of the assessor, may have been caused by a motivation that led to a disregard to meet requirements. The most recent two years of data were evaluated because the allegation asserted that the issue is current. Specifically, "Electrical work *occurring*..." and "...are not being correctly *installed*..." suggests that this is still a problem. The list of NCRs and CRs that was reviewed has been electronically copied and saved for future scrutiny. The list of reports that were considered during interviews is included in the section of this report titled, 'Conduct of Assessment.'

The third part of the assessment was to develop a list of objective questions to determine if there existed a motivation other than to complete work with disregard to meet requirements. Five questions were developed and these questions were reviewed by the assessor and the Federal Project Management to solicit objective advice and ensure the allegation was addressed. These questions are included in the section of this report titled, 'Conduct of Assessment.'

The fourth part of the assessment was to interview the electrical construction personnel. Notes taken during the interviews were documented on individual forms during each interview and are maintained with the assessor's records.

CONDUCT OF ASSESSMENT

Non-conformance Reports (NCRs) and Condition Reports (CRs) that were written at the MFFF were reviewed. The reviewer determined if any met the following criteria.

- o The issue related to electrical construction.
- o The document was written over the past two years.
- o The activity may have been the result of intentionally ignoring a project requirement.

In the MFFF database, 56 NCRs and 20 CRs met the first two criteria. From this subset of NCRs and CRs five NCRs and two CRs met the third criterion.

	Date	Document Number	Summary
1.	10/23/2014	NCR-14-5877	Ground down sides of cable tray to install
2.	12/18/2013	NCR-13-5403	2/c #10 AWG installed rather than 3/c #10 AWG
3.	4/17/2014	NCR-14-5567	Failure to torque battery rack bolts – was this intentional?
4.	10/29/2013	NCR-13-5318	Supports installed with inadequate inspection – rooms B-210/211

Official Use Only

Official Use Only

5.	4/3/2013	NCR-13-4983	Cable pulls with incorrect tension limits
6.	8/21/2013	CR-13-349	Cable pulls without knowing tension limit
7.	3/1/2014	CR-14-026	Installing conduit without an approved work package

Questions:

List of questions used during electrical personnel interviews.

1. Have you ever felt that you were under pressure to perform an activity that did not meet requirements?
2. Do you feel there is a process available to verify or determine the correct requirements?
3. Are you aware of other activities that have been performed that do not meet requirements?
4. Do you believe any of the NCRs or CRs, listed above, involved the performance of installations knowing that they did not meet requirements?
5. Other pertinent comments?

The assessor received assurance from MOX management that NNSA had their full support to conduct the assessment (Ref. 4). The assessor, over three days, visited the selected individuals. Each individual was asked if they were available for a 30 minute interview. When work conditions allowed the individuals discreetly followed the assessor to a private room and the interview was conducted.

ASSESSMENT RESULTS**Question 1: Performing Non-compliant Work under Pressure**

Of seven personnel, five felt pressured to perform work that did not comply with requirements. The two that answered "no" later provided examples that demonstrated that they had performed (or that they were aware of) an activity that did not meet requirements. Almost all individuals named rooms D-104 and D-106 as an example of where they had accomplished work or were involved with work that did not meet requirements. These rooms involved work needed to accomplish a project milestone named, 'Phase One Electrical.' MOX Services is currently correcting some of the work that was previously performed in these rooms.

Other examples provided by the interviewees where they felt pressured to perform work that did not meet requirements were:

A. Room D-109. This work also is associated with Phase One Electrical. It involved the installation of duct bus supports that did not properly align with the wall penetration through which the bus duct was designed to pass. Workers interviewed indicated these supports were installed knowing that they would require rework because they were installed to meet weekly "goals."

B. Room B-250: This work is recent and involved the installation of cable tray supports. The interviewee felt that management knew that the location of these supports would not allow cable tray to be installed by an approved method because of their location. Regardless, this work was directed to meet weekly "goals."

C. Room C-108: The "tabs" are welded onto the supports before the supports are welded to the walls. These tabs should align so that the cable tray linearly fits. The tabs do not align and some will need to be cut off and re-welded.

D. Throughout the facility: Installation of partially run conduit to meet goals. Much of this conduit was found to interfere with the installations of other trades (ventilation duct and process pipe, for example), had to be removed, and will be installed at a later time.

Question 2: Process to Determine Correct Requirements

Three of the seven interviewees felt that there was no process available to determine correct installation requirements. Two others said a process existed but then gave an example of how that process could be adulterated. Various reasons for why employees felt that no process existed were given. Two believed that failure to perform an installation, even if it were wrong, would lead to the employee being placed on the top of a "layoff list." Electricians have been laid off in the past because of lower levels of available work. Those on top of the list were laid off first. With this perceived threat an employee may decide to not to challenge but perform a work activity.

Official Use Only

One employee said that field information is controlled by the General Superintendent. He was told by the General Superintendent, "Nobody talks to [the Area Project Manager] unless you talk to me first. I'm over the field." As a result he believes the APM is "disconnected" from information. When asked, most field workers have never spoken to the APM. The role of the APM and his desire to understand rework was discussed in the section, 'Work Flow at MOX.'

One employee stated that superintendents were told [by the General Superintendent] not to attend schedule meetings because "they speak it like it is and makes management look bad in front of the customer." This prevents installation issues from being reported because the superintendents are in the field and understand the details of the work.

Another employee stated that the General Superintendent used overtime to pressure employees to perform work that did not meet requirements. It was explained that most employees have a strong desire to work overtime. Superintendents are told that, if they do not meet goals, their workers will not work overtime. Oftentimes work cannot be performed because of issues outside of the workers control (material unavailable, no work packages ready, obstructions from other work or conditions, etc.). Using overtime as leverage can pressure workers to perform work despite proper requirements.

Other interviewee statements that were provided and that could also lead to the determination of correct requirements were; 1. Not allowing superintendents knowledgeable of the work to take part in pre-job walk-downs, 2. Not inviting personnel to project meetings because "you tell the truth," 3. Telling the subcontractor that they will have no more work if safety issues (non-controllable issues such as bee strings) continue.

Question 3: Other Examples

Two employees cited examples for the performance of work that is "out-of-sequence." Work performed out-of-sequence allows a group to meet goals but does not consider the potential interference that this work may cause other work groups. This issue has existed since the beginning of construction at MOX and has received management focus in recent months.

One employee cited the drilling of splice plates on cable tray. He said, drilling splice plates was known to not meet project requirements. The employee suggested it was performed under pressure to accomplish goals.

The latter employee also said installation credit was taken for welding "secondary supports" to main supports. However, the main supports were not installed onto their designated embed plates but were lying on the ground. He claimed that these secondary supports had to be reworked approximately 10 of the time because they did not align correctly.

As of the date of this assessment, no electrical work packages on the MOX project have been closed. One employee suggested that this exemplified an activity that did not meet requirements.

Question 4: NCRs and CRs

Four of the seven documents (NCRs and CRs) that were independently identified by the assessor (items 1, 2, 5, and 6) were associated with electrical work in rooms D-104/106. As stated earlier, much of this work was installed to meet a milestone. Also, item 7 was performed with the knowledge that it did not meet project requirements. As a result, five of the seven items were completed with the motivation of "pressure to meet goals."

Question 5: Other Pertinent Comments

One employee was told by the General Superintendent, "Don't talk about problems in front of design to give them ammunition of how we make mistakes. Only talk about design issues."

Several employees said that there existed a network of employees in the electrical group that supported the General Superintendent. These groups were described as a FLEA organization, buddy network, and either "buying into the General Superintendent's plan or getting on his shit list." One employee heard the General Superintendent say that, "[Putting] an IBEW 1579 [in a position of approval authority was] the worst thing he ever did." [IBEW is the International Brotherhood of Electrical Workers, which is the local union hall in Augusta, GA.]

An employee added that the General Superintendent did not understand "what it takes" [to do the work].

Another suggested that the General Superintendent is vindictive and that it is "hard to do a job with that relationship." That, "we can excel if we can get this off of our back. He controls every move." The same

Official Use Only

Official Use Only

employee believes that "[the General Superintendent] came in as a welder and [the construction manager] took him under his wing and gave him a promotion."

Finally, one employee felt that overall, things are improving - that most "bad eggs" are gone.

CONCLUSION

There seems to be an opinion shared by a majority of electricians that they could be punished if they refuse to perform activities even if they do not meet project requirements. Punishment is not receiving the same benefits as the "in" crowd, being denied overtime, or losing a job during the next layoff.

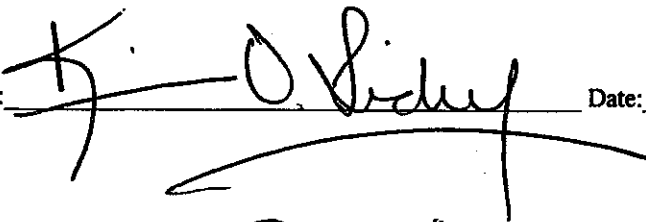
Many of the interviewees referenced the General Superintendent as the instigator for creating an atmosphere of performing non-compliant work under the pressure of retaliation by punishment. The motivation of the General Superintendent appears to be a zealous desire to meet goals and "look good" despite any issues that may prevent the proper installation of materials.

It should be noted that this conclusion was not shared amongst the interviewees unanimously. But, the assessor believes this conclusion was shared by the majority and is a fair representation of the majority of all MOX electricians.

Based on the facts observed the assessor has determine that the allegations are substantiated. Specifically, that electrical materials must be "repeatedly removed and installed again, resulting in a waste of Department funds."

Distribution: MOX Services
OFMD Document Library

Assessor:



Date:

1/27/2015

Construction Lead:



Date:

1/27/2015

Official Use Only

Official Use Only

ATTACHMENT

Interviewee Responses to Selected Questions

Note: Items in parenthesis were included to "complete the interviewee's thought" or to provide clarification when the assessor was not able to write quickly enough. These are intended to be objective additions and the assessor believes that the interviewees would have no objections to these additions. The actual interview sheets have been electronically scanned and saved.

Question 1:

E1

Yes. D-104/106. Work was completed to meet milestones. D-109. Supports did not line up with penetrations. B-250, recently.

E2

No.

E3

No.

E4

Yes. In order not to lose my job. Most (employees) knew D-104/106 work was not in accordance with requirements. (Work conditions today are better) B-181/182 and B-250 are examples of good practice. (Better because a subcontractor is out in the field and understands the work.)

E5

Yes. D-104/106. Goals drive everything. (Work) needs to be (finished) but (instead) we move to other areas to get goals. Example is C-108 tray tabs. (If you look from the bottom of the shaft you can see that they don't align. So they will have to be cut off and rewelded.)

E6

Yes. (D-104/106) Work could have been done right the first time but went ahead anyway for fear of retaliation from JM. There is a buddy network. (These are people) that are not qualified but friends so (JM) got them jobs. (JM) said (using) IBEW 1579 people (to inspect work) was the worst thing he ever did. (They say what is not correct and would slow things down.)

E7

Yes. Felt pressure to meet goals. D-101/104/106. Did things that were not in accordance with requirements. Pulled 10-3 wire instead of 10-2 wire (because it was available. This would be done in commercial work but not in a nuclear job where requirements must be strictly controlled.) Installed 18 X 5 tray because 19 X 7 was not available. (Both examples were done even though no paperwork was changed. This kept job moving to meet milestone, even though it was not in accordance with requirements.)

Question 2:

E1

No. Use chain of command or get laid off. You will be on top of list for (next) lay off. (The significance of this statement is that, if you don't go through JM, you will be in line for the next lay off.)

E2

Yes. First, tell them it's wrong. If they show it was cleared (meaning, if he had approval) he would do it.

E3

Yes. Go to a CE (construction engineer).

E4

Official Use Only

Yes. Figure it out with design (using the approved design change process). New guys need to get it. (There is lots of turnover and new employees need to be trained to understand that nuclear facility requirements must be followed).

E5

Won't do it. (Employee is in a position to not perform work that does not meet requirements. However, his response to question 1 demonstrates he is aware of examples where work was installed that will require rework.)

E6

No. You will get placed on a lay-off list by JM. Employee gave an example where he had surgery and, he felt, he was laid off because he could not come to work during recovery period.

E7

No. "Nobody talks to Gordon unless you talk to me first." (Interviewee gave this as a quote from JM. The intended emphasis of this statement was that he could not explain to the Area Project Manager (Gordon) what the problems are or how things could be improved.) Gordon is disconnected. (He does not talk with the field workers to understand the issues in the field.)

Question 3:

E1

One potential area is work package closure.

E2

Biggest thing is sequencing. Scissor lifts vs. scaffolding.

Drilling splice plates. Knew it violated UL. But, thought engineering thought it would work. (This is the employee that stated he would ask if something was "cleared." If so, he would proceed.)

Rumor – short conduit pieces installed throughout facility were installed just to meet goals. So was wire that was run through conduit pieces. (Would never do this in a normal job.)

Welding (constructing) supports on the ground were accepted to meet goals. (This leads to rework because when they are installed they sometimes – 90 in his words - do not align with each other and have to be reworked.) No procedure requires (supports to be laid out first. He does this on his own and with the management of the subcontractors' endorsement.)

E3

No sequencing. Putting up cable tray in C-114 when designed conduit and wireway (is supposed) to go above it. To meet goals. No design personnel (in field to verify design intent being met). Wise (electrical subcontractor) is not in a schedule meeting because they it like it is and they "make them look bad in front of the customer."

E4

No. This is no longer an issue.

E5

D-001. (It was) a push.

E6

The MOX project has a bad rep. (Work) Packages are wrong.

E7

(Interviewee was told to) "stay out of meeting because the client didn't need to hear issues."

Question 4:

E1

Not familiar with the work (described in the title of the NCR/CR).

E2

No.

E3

Official Use Only

Official Use Only

Yes. Mostly, these issues (in the NCR and CRs) are a thing of the past.

E4

Yes. Number 1 and 7.

E5.

Not sure. (This employee has never worked directly for CBI and is unfamiliar with these NCRs and CRs).

E6

Yes. The ones about cable and cable tray.

E7

(No opinion.)

Question 5:

E1

No.

E2

Overall improving. Bad eggs are gone – most (of them).

(One of the bad eggs) used to spread pictures of offenders. (This “bad egg” was the lead of construction engineering. He was later “removed” because he was involved with facilitating false urine samples for some employees.)

E3

Wise (subcontractor) is in the field. They can defend when something can’t be done (because they understand the details unlike the time when work was done directly with CBI). Earlier, when something couldn’t be installed they went to an empty room. Now, they have to stick to the schedule and use specific work packages and materials.

E4

(None provided.)

E5

If you tell the truth in front of the client you aren’t invited (to schedule and issue meetings).

If you don’t meet goals you cannot work overtime.

Example of vindictiveness

Hard to do a job with that kind of relationship.

Not invited to (pre-job) walk downs (because he points out issues).

JM came to this project as a welder. Ed took him under his wing and gave him a promotion.

The super (JM) is vindictive. He could not get it done and (he – JM – will ensure Wise won’t. He doesn’t want them to succeed.

We can excel if we can get this (JM) off of our back. (He) controls every move.

(Example given) Three safety issues were reported and he used that to tell them they could not work safely. Keep it up and no more work (will be given to Wise.) He doesn’t care about safety (just using reports of incidents against you.)

If you don’t buy into supers (JMs) plan you get put on his shit list.

E6

JM is in the “FLEA organization.”

Family comes out on referral and moves up.

JM does not understand what it takes (to do the work).

E7

Don’t talks about problems in front of design to give them ammunition of how we make mistakes. Only talk about design issues.

Official Use Only

EXHIBIT C



(VIA E-MAIL ONLY)

Ms. Carol Elliott
Contracting Officer
NNSA Operations Office
Savannah River Site Office
P.O. Box A
Aiken, SC 29802

27 March 2015

DCS-DOE-004858
Response Required: N/A
Response Required By: N/A

**SUBJECT: Contract No. DE-AC02-99CH10888 MOX Fuel Fabrication Facility Project
Response to IG Allegation 15-0061-C**

**REFERENCE: NNSA Letter COR-SRFOCABM-3.9.2015-616875 from C. Elliott to R. Norton,
dated 9 March 2015, RE: IG Allegation 15-0061-C**

Dear Ms. Elliott:

I am in receipt of your letter dated 9 March 2015 requesting that MOX Services provide NNSA with a "schedule for completion of the [electrical rework allegation] investigation and delivery of [MOX Services] findings by March 23, 2007." Thank you for the extension to 27 March 2015 to provide this information to you. I am submitting this letter on behalf of MOX Services with a summary of our findings arising from MOX Services' independent investigation into the electrical rework allegation referenced in your letter.

As you will recall, NNSA met with MOX Services on 11 February 2015 and provided us with an "NNSA Assessment Report, Attachment and Recommendations" ("NNSA Report" or "NNSA Assessment Report"). NNSA also provided MOX Services with an executive level discussion of NNSA's investigative methodology as well as NNSA's concerns arising from its investigation into the allegations received by the Inspector General's Office. It was clear to MOX Services from the tenor of that meeting that NNSA expected MOX Services to fully investigate this issue and report back on these serious allegations.

Subsequent to that meeting, MOX Services retained an outside party to conduct an independent investigation into the allegations set forth in the NNSA Report. In short, MOX Services set out to determine whether the perceptions were founded in reality or simply that—perceptions.

That independent outside investigator was provided access to the NNSA Report, MOX Project personnel and all the materials referenced in the NNSA Report. MOX Services is pleased to report that its independent investigation did not substantiate the NNSA Report allegations. While the NNSA Report appeared to find that there existed a *perception* that the allegations concerning electrical rework could be true, MOX Services is performing its obligations despite an extremely challenging environment which it has no control over. This environment leads to speculation and perceptions regardless of the facts and is beyond the contractual obligations of MOX Services to influence. Below, please find a general summary of MOX Services findings as those relate to the specific allegations from the NNSA Report:

Overview

MOX Services' investigation included interviews of forty-six (46) individuals currently employed in support of the Project. These individuals included almost half of the electricians; the electrical subcontract project manager; electrical subcontractor general superintendent; CPSG general superintendent; present and former Vice Presidents of Construction; and, other executive level MOX Services' subcontractor employees knowledgeable about both the timeframe referenced by the NNSA Report as well as current practices and issues related to commodity installation at the MFFF. MOX Services' investigation involved a fifteen question protocol and included specific inquiry into the use of commodity installation goals as a performance measure.

Findings

1. *Rework Has Been Required By Design Changes and Other Legitimate Factors*

There is no dispute that rework has been required on some of the electrical installations in the MFFF. While every effort is made to avoid rework, rework is to be expected on a first of its kind and one of a kind construction project like MOX. MOX Services' investigation identified several legitimate factors that have contributed to the need for rework. While some individuals may perceive that work is being performed knowing that it will have to be reworked, their perceptions do not appear to consider these legitimate factors.

Design changes are one such factor. Designing for the MOX project began in 2003. It is still being designed today. Significant design changes have occurred during construction. Sometimes work that has been installed was required to be reworked to accommodate the design changes.

Inconsistent funding is another factor. In some cases, particular activities were started and then either stopped or re-sequenced due to funding limitations resulting in incomplete work. That incomplete work is visible today, which may be contributing to the perception that incomplete work was installed simply to take credit for it.

MOX Services implemented the Area Project Management program in late 2013. Through this program, the Project Management organization exercises tighter control over commodity installations through the schedule. In addition, both the project design and project schedule are more mature. MOX believes that this program will result in even less rework being required on future installations.

Finally, MOX Services recently held an "All Hands" gathering. This type of open forum should help to excise negative perceptions throughout the Project craft and non-craft labor force.

2. *Response to Specific NNSA Assessment Report Allegations*

The NNSA Assessment Report identified alleged examples where at least some of the individuals interviewed "felt pressured to perform work that did not meet requirements" (NNSA Assessment Report at 3) or otherwise perceived that work was inappropriately installed to meet commodity goals. These allegations could not be substantiated by MOX Services.

a. *Rooms D-104 and D-106*

The NNSA Report asserts that “almost all individuals named rooms D-104 and D-106 as an example of where they had accomplished work or were involved with work that did not meet requirements,” and that such work was “needed to accomplish a project milestone named, ‘Phase One Electrical.’” (NNSA Assessment Report at 3). The NNSA Assessment Report notes that “MOX Services is currently correcting some of the work that was previously performed in these rooms.” *Id.*

This allegation is not substantiated. Most of the electricians interviewed were not aware of the work performed in these rooms, were not aware of any issues in these rooms, were not working in the MFFF at the time of the initial installations, or were not aware of any work having been installed not in accordance with requirements in order to meet a goal. Some of these individuals were aware of rework, or had performed rework, in these rooms, such as cutting out improperly welded clips/supports, or installing cable tray. But they did not share a perception that the initial work was done for an improper purpose.

As to the allegations that Mr. Morris directed the work be done for an improper purpose in those rooms, Mr. Morris could not have directed electrical installations not in accordance with requirements during the Phase I Electrical Milestone because he was not the Electrical General Superintendent for most of (if not all) of that endeavor. He was the Piping General Superintendent from roughly August 2012 through December 2013.

Moreover, no interviewee identified any occurrence where MOX Services directed work to be installed in rooms D-104 and D-106 during the Phase I Electrical Milestone not in accordance with requirements in order to meet a goal. After completion of the investigation, there is no evidence to support the allegations.

b. *Room D-109*

The NNSA Assessment Report states that work performed in Room D-109 was associated with the Phase I Electrical Milestone and involved the knowing “installation of duct bus supports that did not properly align with the wall penetrations through which the bus duct was designed to pass” in order “to meet weekly ‘goals.’” (NNSA Assessment Report at 3).

This allegation is not substantiated. Among those interviewed, the overwhelming majority was not familiar with the work performed in the room, or otherwise not aware of work being installed not in accordance with requirements to meet a goal. Some of these individuals knew that rework was performed, but had no information about inappropriate installations.

The current Lead Field Construction Engineer denied that the rework in room D-109 was the result of inappropriate installation in order to meet a goal. He explained that the duct bus supports were installed at the proper elevation per design drawings. The concrete walls for the room are 2 feet deep. When the penetration into the room was drilled through the two foot wall, it was tilted upward. Accordingly, the bus duct supports had to be reworked to elevate them by one inch. Electrical General Superintendent Morris could not speak to this issue because he was not in charge of Electrical at the time in question. Again, after completion of the investigation, there was no evidence to support the allegations.

c. *Room B-250*

The NNSA Assessment Report states that the alleged improper rework "is recent and involved the installation of cable tray supports" and that "management knew that the location of these supports would not allow cable tray to be installed by an approved method because of their location," but was directed to be installed to meet weekly goals. (NNSA Assessment Report at 3). This allegation is the same allegation raised later in the NNSA Assessment Report (page 4) concerning "drilling of splice plates on cable tray," which "was known to not meet project requirements," with one employee "suggesting that it was performed under pressure to meet goals."

MOX's investigation found no support for this allegation. Not one individual interviewed provided credible information suggesting that rework being performed in room B-250 resulted from inappropriate installations in order to take credit for work. Among those individuals aware of the rework being performed in this room, most understood that the rework resulted from a recently discovered design issue.

d. *Room C-108*

The NNSA Assessment Report alleges that, in room C-108, "'tabs' are welded onto the supports before the supports are welded to the walls" and "the tabs should align so that the cable tray linearly fits" but "the tabs do not align and some will need to be cut off and re-welded." (NNSA Assessment Report at 3). This allegation is the same allegation raised later in the NNSA Assessment Report (page 4) concerning credit allegedly taken for "secondary supports to main supports" but "the main supports were not installed onto their designated embed plates but were lying on the ground" resulting in some of the secondary supports having to be reworked because they did not align correctly.

This allegation is not substantiated. Bench work or table welding of clips onto supports is a standard construction technique performed when the work cannot be installed in place. The overwhelming majority of individuals interviewed said that they were not familiar with the work performed in the room; did not offer any specific information concerning the allegation, or; otherwise were not aware of work being installed not in accordance with requirements in order to meet a daily goal.

Mr. Morris explained that the procedure for performing the work at issue takes into consideration the fact that the walls of the shaft are not straight or flat, but have one-inch tolerances in either direction. Mr. Morris said, in accordance with procedure, that the supports embedded into the shaft walls should be fabricated with an extra two inches in length to account for the walls' tolerances. Mr. Morris also noted that the project has moved away from welding such secondary supports/clips and instead relies more on the "drill and tap" method for attaching secondary supports/clips, which allows them to be moved if needed.

Additionally, the NNSA Report states that a Wise electrician stated that he raised a concern about welding the clips onto the supports on the bench knowing that we would have to redo it later. Mr. Morris was not the Electrical General Superintendent at the time the table welding was performed. Mr. Morris also denied making any statement suggesting that subsequent rework was desirable because it's a separate pot of money allowing the project to get paid twice. Given that Mr. Morris was not the individual who could have made the alleged

statements during the alleged time and no other persons were identified as making the alleged statements, there is no evidence to support these allegations.

3. *Partially Run Conduit Throughout MFFF*

The NNSA Assessment Report asserts that, "[t]hroughout the facility: Installation of partially run conduit to meet goals. Much of this conduit was found to interfere with the installations of other trades (ventilation duct and process pipe), had to be removed, and will be installed at a later time."

The allegation that partially installed or "field routed" conduit seemingly evidences work being performed to obtain credit knowing that it will have to be redone is not substantiated. While roughly half of the electricians interviewed were aware of partially run conduit, and that some of it has been reworked, it was also noted that it is expected that a field routed commodity like small bore conduit would often have to be reworked because its placement is not specified in the design. Rather, it is installed so as not to interfere with other commodities that are specified in the design. Recently, some field routed conduit has been moved because the design at the time the conduit was installed had omitted penetrations in the concrete walls, which had to be cut out once the design matured.

Three individuals identified a specific example where work installing approximately 40-50 feet of conduit proceeded while the work package was on administrative hold. One of these individuals claimed that Jamie Morris wanted the conduit installed in order to meet a goal; another claimed it was a former Electrical General Superintendent who directed it. Mr. Morris recalled that this incident occurred around January 2014 when he was transitioning back to the Electrical Department. He denied directing that the conduit be installed to meet a commodity goal knowing that the work package was on administrative hold. He explained that "we have a CR on that issue The foreman told the guys to get mobilized. The Construction Engineer didn't finish revising the package before he started. [The former Electrical General Superintendent] stopped the work when he saw them I sat the workers down and said we can't work without a work package." This incident is documented in the corrective action system under CR-14-026 (discussed later in this report).

Mr. Morris was not the Electrical General Superintendent from roughly August 2012 through December 2013 when much of the field routed conduit was installed in the MFFF. For conduit installed during his tenure, he stated that it was done in accordance with the plant model. He otherwise denied directing that field routed conduit be installed just to meet a commodity goal. Mr. Morris also stated that, as a result of budget cuts and constraints, some conduit installations were ceased before they could be completed. For example, Mr. Morris said at one time, work in the BMP was directed to be halted, with all efforts redirected to the BAP. Conduit that was in process of being installed in the BMP was left unfinished. Mr. Morris said that the project decided to install permanent lighting for temporary uses rather than spending enormous sums of money on temporary lighting. Some of these installations were also halted before they could be completed.

Although the NNSA Report determined that partially installed conduit, by itself, evidenced a perception of inappropriate installation, the evidence shows that the partial installation of conduit occurred for legitimate reasons.

4. *Work Performed Out of Sequence*

Under "other examples" of alleged inappropriate electrical installations, the NNSA Assessment Report alleges examples of "work performed out of sequence which allows a group to meet goals but does not consider the potential interference that this work may cause other work groups." (NNSA Assessment Report at 4). This allegation is not substantiated. None of the Wise supervisors were aware of any work intentionally performed out of sequence just to meet commodity goals. Thirteen of the twenty Wise electricians interviewed shared no information suggesting work was deliberately performed out of sequence in order to meet goals. The remaining seven electricians were aware of examples where a commodity had to be moved to accommodate a later-installed commodity, but had no information suggesting that work was deliberately installed or installed out of sequence solely in order to obtain a credit.

5. *Alleged Failure to Close Electrical Work Packages*

The NNSA Assessment Report claims that, "[a]s of the date of this assessment, no electrical work packages on the MOX project have been closed," and "one employee suggested that this exemplified an activity that did not meet requirements." (NNSA Assessment Report at 4). MOX's investigation found no credible support for this allegation. For the most part, none of the MFFF work force (Wise supervisors and electricians) worked on closing out work packages, and none had specific knowledge about the closure of work packages.

6. *Alleged Lack of Process to Determine Correct Installation Requirements*

The NNSA Assessment report states that three of its interviewees "felt that there was no process available to determine correct installation requirements," and that two others "said a process existed but then gave an example of how that process could be adulterated." (NNSA Assessment Report at 3). MOX's investigation found little, if any, support for this claim. The overwhelming consensus from MOX's interviews with MFFF personnel is that electricians can ask questions (if any) of their foremen, other supervisors, or anyone else in their chain of command; construction engineering inspectors; engineering, or quality control.

7. *NCRs and CRs Allegedly Reflecting Work Performed Out of Sequence*

The NNSA Assessment Report states that a review of MOX project Non-conformance reports (NCRs) and Condition reports (CRs) found seven total (five NCRs and two CRs) that (1) "raised an issue related to electrical construction"; (2) "were written over the past two years"; and (3) "may have been the result of intentionally ignoring a project requirement." (NNSA Assessment Report at 2). In addition, the NNSA Assessment Report states that "[f]our of the seven documents (NCRs and CRs) that were independently identified by the assessor (items 1, 2, 5, and 6) were associated with electrical work in rooms D-104/106," and "much of this work was installed to meet a milestone. Also, item 7 was performed with the knowledge that it did not meet project requirements." *Id.* at 4. The NNSA Assessment Report summarily concludes that "five of the seven items were completed with the motivation of 'pressure to meet goals.'" *Id.*

MOX Services' investigation does not substantiate this allegation. First, no information in items 2 (NCR 13-5403, incorrect cable designation) and item 5 (NCR-13-4983, MV cable pulls technique not per design) suggests that the issues identified in those documents relate to or stem from production pressure.

Item 1 (NCR 14-5877) concerns an issue that was previously addressed in this report concerning grinding the clips so that the cable try would fit. MOX's investigation could not substantiate the claim that this 'short cut' was directed in order to meet a commodity goal. CR-14-390 was generated to track this issue. Corrective and preventive actions taken or to be taken are identified in CR-14-390.

Item 6 (CR 13-349) does not support the allegation that work was directed to be performed to obtain installation credit knowing that it would have to be redone or reinstalled again. The work instructions for a mechanically assisted group cable pull did not provide a maximum allowable pull tension but should have. An Electrical Construction Engineer provided verbal instructions to use a pull tension of 600-800 pounds rather than following the required process of stopping work to get the paperwork changed. Engineering calculations after the fact provided the maximum pull tension of 3481 pounds. Megger tests confirmed no damage to the cables, and they were accepted as is.

Item 7 (CR-14-026) involved an incident previously discussed in this report about conduit being inadvertently installed without a work package. MOX's investigation did not substantiate that this work was directed to be installed in order to meet a daily goal, knowing that it would have to be reworked or reinstalled in the future.

8. *Layoff Implementation*

The NNSA Assessment Report states that two individuals "believed that failure to perform an installation, even if it were wrong, would lead the employee being place[d] on the top of a "lay off list" and be "laid off first," resulting in an employee "decid[ing] not to challenge but perform a work activity." (NNSA Assessment Report at 3).

This allegation is not substantiated. None of the Wise electricians interviewed could identify individuals laid off for refusing to perform an installation. The Wise supervisory personnel stated that MOX Services has no say in which Wise electricians get laid off. MOX Services may determine that a particular number of individuals must be laid off for budget, execution plan or other reasons, but Wise determines which people are laid off. Three Wise supervisors specifically stated that Electrical General Superintendent Jamie Morris has never directed that a particular person be laid off.

Mr. Morris said that craft personnel are ranked in four areas: absenteeism, safety, work quality (i.e., how much rework of this individual's work has been done), and performance (i.e., write ups). It is Mr. Morris' understanding that if a layoff were to occur, the lowest-ranked individuals would be laid off first. Mr. Morris stated that he does not rank the personnel, his superintendents do.

9. *Interaction with Area Project Manager*

The NNSA Assessment Report states that "[o]ne employee said that field information is controlled by the General Superintendent" because the employee "was told by the General Superintendent, 'Nobody talks to [the Area Project Manager] unless you talk to me first. I'm over the field.' As a result he believes the APM is 'disconnected' from information. When asked, most field workers have never spoken to the APM."

MOX Services' investigation does not substantiate this allegation. It is true that most of the field workers stated that they either did not know the APM or had little interaction with him. But none of the Wise electricians interviewed stated that they had been directed not to raise issues to him.

Mr. Morris stated that he has stated to the Wise supervisors that, because "we have a chain of command, if you have an issue, let me know, and then we can go to the APM. If I am not here, then go to the APM, he's the next in the chain." Mr. Morris explained that the APM "walks around all the time and people talk to him." He "does not have any issues with anyone talking to" the APM. He just "wants to know something before his boss does." This is consistent with the field chain of command for raising issues or asking questions, and is not inconsistent with field workers access to the APM.

According to MOX Services' interview with the APM, he is not "disconnected" from information at the site. The APM said that "I speak with Wise personnel and CB&I personnel all the time." When asked if he was aware that Mr. Morris allegedly had asked some personnel not to speak with the APM before speaking with Mr. Morris first, the APM responded that he was not, but that he "knows Mr. Morris likes to know what is going on. He likes to fix it if he can, and he can't do that if he does not know." In addition, the APM attends the 4:00 PM Monday, Tuesday, and Wednesday meetings (discussed further below in the next section) with Wise supervisors and representatives from other departments. During these meetings, "detailed discussion – sometimes excruciating discussion" of issues are held.

10. *Attendance at Meetings and Participation in Walkdowns*

The NNSA Assessment Report states that "one employee stated that superintendents were told by the [General Superintendent] not to attend schedule meetings because they 'speak it like it is and makes management look bad in front of the customer.' This prevents installation issues from being reported because the superintendents are in the field and understand the details of the work." (NNSA Assessment Report at 4). The NNSA Report also claims that personnel were not invited to project meetings because they "'tell the truth,'" and that superintendents knowledgeable of the work to be performed were not allowed to "take part in pre-job walkdowns." *Id.* These allegations are not substantiated. All of the Wise supervisors and electricians interviewed stated that they were never directed not to attend pre-job walkdowns, and never heard of anyone else being so directed.

MOX Services' investigation found that three Wise supervisors were asked to no longer attend the Monday, 2:00 PM schedule meetings, but this request was not done out of any effort to keep information from DOE. The meeting was held in a small conference room that could accommodate only one representative per group attending. Mr. Morris also wanted to cut down on the redundancy of meetings for the Wise supervisors, particularly where they are supposed to be supervising personnel in the field. Furthermore, a 4:00 PM meeting is held each Monday, Tuesday, and Wednesday for the sole purpose of raising and addressing day to day issues. Mr. Morris rejected the suggestion that limiting this was done to prevent them from raising issues to DOE. Mr. Morris noted that the DOE representative is "out there [in the field] daily talking to the guys." In addition, Mr. Morris said that in many cases the issues discussed at the 4:00 PM meetings are raised the next morning by him in the 6:30 AM Plan of the Day meeting "in front of the President of the company and the President of NNSA." Accordingly, there are multiple meetings and other avenues of communication to address issues raised in the field.

The APM confirmed Mr. Morris' statements. The APM explained that attendance was limited at the 2:00 PM Monday meeting because its purpose is to provide a "general update to the schedule" but "was turning into a two-hour affair and we have other issues to discuss – it was a logistics thing." He added that "it was not to shut them out of discussing their issues; at 4:00 we go through detailed discussions – sometimes excruciating discussion – of these issues." Further, the APM stated that Mr. Morris requested this change because he "wanted the guys out in the field" and the APM "concurred."

11. *Overtime*

The NNSA Assessment Report says one "employee stated that the General Superintendent used overtime to pressure employees to perform work that did not meet requirements. . . Superintendents are told that, if they do not meet goals, their workers will not work overtime . . . Using overtime as leverage can pressure workers to perform work despite proper requirements." (NNSA Assessment Report at 4).

This allegation is not substantiated. While MOX Services' investigation found that three Wise supervisors stated that Mr. Morris said that overtime would be refused if commodity installation goals were not met, there is no evidence to support the assertions. Further, MOX Services' investigation found that no Wise supervisors stated that overtime was denied for refusing to do improper work. One supervisor added that he never interpreted the direction to meet the commodity installation goals as "get the work done not in accordance with requirements."

Mr. Morris denied that commodity goals drive overtime requirements. Rather, he stated that the schedule and other factors drive whether overtime will be required. Mr. Morris explained that he sits down with the Wise supervisors each Tuesday and goes through the schedule with them line by line in determining whether to authorize overtime. If the schedule allows a task to be completed within the next two or three weeks, overtime is not likely to be used for that task on the upcoming weekend. But if the task is supposed to be done in a week, and there is more work left to do than can be done in a week, he will authorize overtime. If there are design issues left in a particular room, overtime will not be worked in that room "because we are risking waste if design issues are unresolved." Overtime will not be used in a particular room if another craft is working that room.

Budget constraints are also a factor in determining when overtime will be approved. Mr. Morris noted a recent example where the Acting Vice President of Construction stated that no one individual can be permitted to work more than 48 hours per week, and that Saturdays are not permitted to be worked. An individual will not be allowed to work overtime if that individual has not met their straight time requirement for the week.

The APM confirmed Mr. Morris' description of how overtime is authorized – that overtime "is based on what they had done or not done to meet the overall schedule" and "if overtime is needed to meet a two week window [to complete a task], I'll authorize it." He further explained that, "if employees are not working at their unit rate and it appears they are not working diligently, we will look to see if they are working knowing that we will give them overtime on Friday. We will suspend overtime for a certain amount of time . . . to prevent abuse of the system." He noted that overtime is being worked by approximately 6-10 people every Friday.

As explained above, overtime authorization is a product of multiple considerations. While an individual's performance is considered as part of the equation, it is only considered to avoid abuse of overtime and other factors such as schedule, budget and room availability control overtime authorizations.

12. *Alleged Favoritism*

The NNSA Assessment Report states that "[s]everal employees said that there existed a network of employees in the electrical group that supported the General Superintendent . . . described as a FLEA [sic] organization, buddy network, and either 'buying into the General Superintendent's plan or getting on his [expletive] list.'" (NNSA Assessment Report at 4).

This allegation is not substantiated. First, craft personnel are either hired through the union hall or by a subcontractor. Mr. Morris has no influence on which people are hired. Mr. Morris stated that although he may have had prior experience working with an individual on another project at another site and knew the quality of the person's work if an individual excelled on the MOX Project the individual would be considered for promotion accordingly. As one example, Mr. Morris said that he promoted a fourth year apprentice to a General Foreman as soon as she became a journeyman because "she is that good," noting that she went to a competition representing her school for electrical work. This individual became a superintendent and now reports directly to the Acting Vice President of Construction.

There is no evidence of "favoritism" or other behavior by the General Superintendent to indicate that individuals are not fairly treated.

13. *Continuation of Wise Subcontract and Safety Issues*

The NNSA Assessment Report states that the Electrical General Superintendent told "the subcontractor that they will have no more work if safety issues (non-controllable issues such as bee stings) continue." (NNSA Assessment Report at 4).

This allegation is not substantiated. The four Wise supervisory personnel interviewed as part of MOX Services' investigation denied that the future of their subcontract was threatened in any way with respect to raising safety issues. In addition, Mr. Morris stated that the scope of the Wise subcontract was established a year ago when MOX Services determined to discontinue direct hires for electrical work in the MFFF and to bring in a new subcontractor for that scope of work. The APM explained that Wise was contracted for "intermediate transition" to supplement work in the MFFF until the new subcontractor could be selected and awarded a contract.

Conclusion

As the foregoing establishes, MOX Services' investigation was unable to substantiate any improper installation and removal of electrical work. While MOX Services' investigation also could not substantiate the "general perception" that work may have been performed for an improper reason, MOX Services' is not in a position to regulate perception in light of environmental factors beyond its control. MOX Services has a duty to perform work in accordance with its contractual duties and believes that its investigation supports the propriety of both work as-performed and rework that may, from time to time, be necessary as MOX Services strives to build this one-of-a-kind facility.

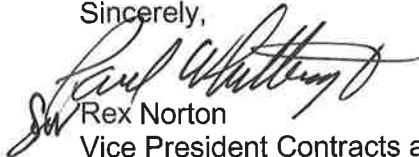
DCS-DOE-004858

27 March 2015

Page 11 of 11

Again, I appreciate the courtesy of the time extension to provide this letter to you, and I trust that this will resolve the issue. Of course, if you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Rex Norton", is written over the word "Sincerely,".

Rex Norton

Vice President Contracts and Supply Chain Management

cc:

NNSA

Tim Fischer, Esq.

MOX

Lauren Wylie, Esq.

EXHIBIT D



Department of Energy
National Nuclear Security Administration
MOX Integrated Project Office
Savannah River Site
P.O. Box A
Aiken, South Carolina 29802



March 29, 2016

Mr. Rex Norton
Vice President, Contracts and Supply Chain Management
CB&I AREVA MOX Services, LLC
Savannah River Site
P.O. Box 7097
Aiken, SC 29804-7097

SUBJECT: Contract DE-AC02-99CH10888, Notice of Intent to Disallow Costs for Certain Electrical Commodities

Reference: NNSA Assessment Report transmitted via email to Mr. Rex Norton on March 9th, 2015 -- IG Allegation Regarding Potentially Non-Compliant Electrical Installations, dated 01/27/2015

Dear Mr. Norton:

This letter serves as formal notification in accordance with FAR 52.242-1, *Notice of Intent to Disallow Costs (APR 1984)*, of the Government's disallowance of \$526,895 of incurred costs for certain electrical commodities which CB&I AREVA MOX Services, LLC ("Contractor" or "MOX Services") improperly installed, then subsequently uninstalled and reinstalled¹, in the Mixed Oxide (MOX) Fuel Fabrication Facility (MFFF). The cause of the improper installation and subsequent rework was the Contractor's failure to follow its strict quality assurance requirements. Further, the Contractor knew or should have known that it was performing work that failed to meet these requirements, and knew or should have known that its failure to do so would necessitate removing and reinstalling the improperly installed electrical commodities. The Contractor originally installed this electrical work in calendar year 2013. The rework began in October 2014 and concluded in November 2015².

¹ Hereafter, NNSA uses the term "rework" to refer to the cumulative corrective actions (e.g., installation, procuring new materials, reinstallation, re-testing, etc.) required to address the improper installation activities.

² NNSA issues this Notice without waiving any rights under law and equity to potential future recovery of any future amounts (i) caused by the improper installation of the electrical commodities at issue herein, (ii) caused by similar improper installation activities in other MFFF areas or during different timeframes, or (iii) related to the rooms and timeframes in question but not addressed herein.

R. Norton

March 29, 2017

Background:

NNSA's awareness of the Contractor's actions was initiated by a management referral received from the Office of Inspector General (OIG). The referral identified the following details of the complaint:

"Electrical work occurring as part of the construction of the Mixed Oxide Fuel (MOX) Facility is not being completed to policy specifications. This is causing the work to be repeatedly removed and installed again, resulting in waste of Department of funds. Specifically, cable trays and conduit are not being correctly installed."

The MFFF is a facility designed to process nuclear materials and is regulated by the Nuclear Regulatory Commission (NRC). As such, it is subject to strict controls to ensure the quality of materials, structures, and documentation of the construction process. These controls are implemented via detailed project plans and procedures³ concerning the conduct of work at the MFFF. The plans and procedures are integral to meeting contract requirements and to ensuring that the MFFF is constructed to NRC standards and a sufficient quality level such that it will be permitted to operate after construction is complete.

The primary plan applicable to the original work in question, as well as the associated rework, is the MOX Project Quality Assurance Plan⁴. The Plan requires the Contractor to perform construction "...in accordance with documented, approved QA procedures and other approved implementing documents" in order to "...ensure consistent application of requirements." The Plan also describes implementing documents in more detail, by stating "(w)ork controlling procedures may use approved checklists, travelers or other means to assure process requirements are met" and that "(p)rocedures provide a consistent method for process performance." These excerpts illustrate the highly controlled manner in which work is expected to be performed at the MFFF and makes clear that the Contractor has no discretion with respect to its employees or subcontractors in determining the procedures used to install commodities, including electrical commodities.

NNSA's Assessment:

In order to determine whether the allegation identified in the management referral from the OIG had any merit, NNSA conducted a detailed assessment. NNSA's methodology and findings are discussed in detail in the referenced assessment, which was provided previously to the Contractor (see below for the Contractor's response to the NNSA detailed assessment). NNSA developed search criteria to identify Non-conformance Reports⁵ (NCR) and Condition Reports⁶ (CR) against

³ Such project plans and procedures are created, maintained, and implemented by the Contractor based on contractual requirements.

⁴ See Revision 10, change 1, dated August 12, 2011.

⁵ NCRs are prepared by the Contractor to report a deficiency in characteristic, documentation, or procedure that renders the quality of an item or activity unacceptable or indeterminate. [Reference ASME NQA-1 – Quality Assurance Requirements for Nuclear Facility Applications).

R. Norton

March 29, 2017

which to test the extent of the Contractor's alleged faulty installation of electrical work. Using these search criteria, NNSA identified 4 NCRs and 2 CRs. These NCRs and CRs related to electrical work in 8 specific MFFF rooms: D-104, D-106, D-108, D-109, D-210, D-001, B-210, and B-211.

NNSA, relying on its corporate knowledge gained from daily oversight activities, selected seven (7) Wise Services and MOX Services employees who were knowledgeable about work performed in the 8 rooms identified in the referral. NNSA was unable to select a larger sample size because most of the employees who were familiar with the work during the time in question were no longer associated with the project at the time NNSA conducted its assessment. Nevertheless, NNSA engaged as many knowledgeable employees as was feasible given the circumstances and believes the sample size was adequate. NNSA conducted the assessment with the Contractor's knowledge and support.

Through the conduct of its assessment, NNSA substantiated the allegation. Namely, the Contractor performed critical nuclear construction work without following its own procedures. The Contractor had a stringent set of requirements for construction work to be performed, in accordance with the contract, but did not follow those requirements, resulting in harm to the Government.

MOX Services' Response:

NNSA provided the Contractor with a copy of its assessment in order to allow the Contractor to self-correct the issues identified and provide appropriate and reasonable restitution for the harm resulting to the Government by the Contractor's actions.

After receiving NNSA's assessment and engaging in related discussions with NNSA personnel, the Contractor initiated its own review of the actions in question, which it summarized in letter DCS-DOE-004858, dated March 27, 2015. In this letter, the Contractor acknowledged that it performed electrical installation that required rework because the original installation did not meet the strict quality requirements. However, the Contractor stated that such rework was caused by "legitimate factors" such as "design changes" and "inconsistent funding."⁷

Moreover, the Contractor stated that it did not seek reimbursement from the Government for its review and declined to provide the Government with a copy of the report or other documentation associated with the review, excepting the aforementioned letter.

In short, the bulk of the Contractor's review consisted of interviewing numerous MOX Services and subcontractor employees involved in electrical installation work generally, but pointedly not those who had actual knowledge or experience of the precise alleged improper installation activities. Indeed, it is apparent that none of the individuals interviewed had actual knowledge of the activities

⁶ CRs are prepared by the Contractor to document problems, including programs, processes, and equipment issues, which are recurring or require further investigation; human performance issues; failures; malfunctions; deficiencies; deviations; and/or potential items for improvement, MOX Services' Corrective Action Process procedure (PP3-6)

⁷ DCS-DOE-004858, pg. 2 of 11

R. Norton

March 29, 2017

in question. Accordingly, based on the Contractor's summary-level description and disclosure of its review, NNSA concluded the Contractor's review methodology was flawed and did not demonstrably refute NNSA's assessment or otherwise discredit the allegations in the Management Referral. Therefore, the conclusions from the NNSA assessment remain valid.

Summary:

NNSA carefully reviewed the record, including the allegation, NNSA's assessment, the Contractor's response thereto, and other relevant facts and documentation. As a result of this review, NNSA has determined that the Contractor (i) failed to follow its requisite procedures that would have ensured the work in question met contractual quality requirements, (ii) knew or should have known of this failure, and (iii) knew or should have known that this failure would require it to repair, remove, replace, and take other associated corrective actions related to the work in question. Consequently, NNSA has determined that the costs associated with these rework activities are unreasonable, as described below.

The Federal Acquisition Regulation (FAR) stipulates that costs must be reasonable as a necessary condition for reimbursement under a contract between the federal government and a commercial organization,⁸ such as MOX Services. A cost is reasonable if, "in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business"⁹ and that what is reasonable "depends upon a variety of considerations and circumstances, including -- (1) Whether it is the type of cost generally recognized as ordinary and necessary for the conduct of the contractor's business or the contract performance."¹⁰

The Contractor performed work under the contract related to certain electrical commodities without following its own procedures designed to ensure the work would meet contract requirements. It knew or should have known that this failure would necessarily result in unsatisfactory work and subsequently require repair, removal, replacement, and other associated actions to correct the improperly installed electrical work. No "prudent person in the conduct of competitive business" would develop detailed and stringent construction installation procedures for a nuclear facility, then fail to follow such procedures, perform unsatisfactory work, and thereafter remove and replace that work and expect such rework costs to be at the expense of the Government. Moreover, the costs of repairs, removal, replacement, and other associated work attributable to the failure to follow such procedures are not the types of cost "generally recognized as ordinary and necessary" to perform the contract, or to conduct to the Contractor's business.

⁸ FAR 31.201-2(a)(1)

⁹ FAR 31.201-3(a)

¹⁰ FAR 31.201-3(b)

R. Norton

March 29, 2017

For all the reasons discussed herein, the Government has determined that the previously incurred, invoiced, and reimbursed costs related to the rework described totals \$526,895. This amount was calculated using the Contractor's rework logs as submitted to NNSA for discrete work, along with estimated material and overhead costs based on reasonable assumptions from the Contractor's bases of estimate (BOE) and actual cost experience.

If MOX Services disagrees with this Notice, it may submit a written response to the Contracting Officer, with justification for allowance of the costs. Any such response must be submitted no later than sixty (60) calendar days from the date of this letter. It is anticipated that this cost disallowance will have an insignificant impact on future or past billing rates or forward pricing rate agreements.

If you have any questions or comments please contact the undersigned at 803-952-2020.

Sincerely,



Lance Nyman
Lead Administrative Contracting Officer

NA-APM-17-0159

cc:

S. Cannon, NA-APM-1.4
M.E. Noone, NNSA Counsel
G. Pyles, NNSA
D. Del Vecchio, MOX Services
G. Rousseau, MOX Services
P. Whittingham, MOX Services
K. Saunders, MOX Services
R. Ridgeway, MOX Services
MOXPMODCA@srs.gov

EXHIBIT E



Mr. Lance Nyman
Lead Contracting Officer
US Department of Energy, NNSA
Savannah River Site Office
P.O. Box A
Aiken, SC 29802

26 April 2017

DCS-DOE-005641
Response Required: Yes
Response Date: 26 MAY 17

SUBJECT: Contract No. DE-AC02-99CH10888, MOX Fuel Fabrication Facility Project, Responses to NNSA Notice of Intent to Disallow

References: NNSA Letter NA-APM-17-0159 Notice of Intent to Disallow Costs for Certain Electrical Commodities

Dear Mr. Nyman:

This correspondence is in response to your Notice of Intent to Disallow (NID) costs pursuant to FAR 52.242-1, dated March 29, 2017. Your letter states that the National Nuclear Security Administration (NNSA) intends to disallow \$526,895 in costs incurred by CB&I AREVA MOX Services, LLC ("MOX Services") for certain electrical rework that was performed in connection with the Mixed Oxide Fuel Fabrication Facility (MFFF) project. To support your NID, you rely on certain Non-Conformance Reports (NCRs) and Condition Reports (CRs) that were previously identified during NNSA's investigation and assessment of an Office of Inspector General (OIG) complaint which generally alleged that electrical work was not completed to contract specifications. After reviewing the NNSA Assessment Report concerning the OIG complaint, you have now determined that MOX Services: "(i) failed to follow its requisite procedures that would have ensured the work in question met contractual quality requirements, (ii) knew or should have known of this failure, and (iii) knew or should have known that this failure would require it to repair, remove, replace, and take other associated corrective actions related to the work in question." NID at 4. Based upon these findings, you assert that the electrical rework costs at issue were unreasonable and therefore unallowable under FAR Part 31.

MOX Services disagrees with the legal and factual basis you provided to support the NID. As an initial matter, the NID is procedurally defective under FAR 42.801 because NNSA has not provided sufficient information regarding the costs it intends to disallow. By simply providing the total intended disallowance without specifying each underlying cost item, NNSA has made it impossible for MOX Services to adequately understand the exact work and associated costs which are at issue, or how the costs relate to alleged wrongdoing on the part of MOX Services. Additionally, the purported basis for the NID is deeply flawed on the merits, both legally and factually. NNSA is not contractually entitled to disallow the costs incurred to correct or revise errors or deficiencies in work unless those errors or deficiencies were due to fraud, lack of good faith, or willful misconduct. There is no credible evidence that the NCRs or CRs were due to any of those aggravating factors. In fact, NNSA has not even alleged that those factors were the cause of the rework at issue. Rather, NNSA only alleges that the electrical rework was required because MOX Services did not follow its QA procedures. However, even if that were true, non-compliance with QA procedures is not a sufficient basis to disallow the cost incurred for rework.

DCS-DOE-005641
26 April 2017
Page 2 of 6

MOX Services therefore respectfully requests that you withdraw your NID because it is legally and factually unsupported for the reasons further explained below.

A. The NID Does Not Comply With FAR 42.801 Because NNSA Fails To Identify The Specific Cost Items It Intends to Disallow

Pursuant to the FAR, a notice of intent to disallow costs must “[d]escribe the costs to be disallowed, including estimated dollar value by item and applicable time period, and state the reasons for the intended disallowance.” FAR 42.801(c)(3) (emphasis added). NNSA’s NID fails to satisfy that requirement. Specifically, NNSA identifies the total amount (\$526,895) it intends to disallow, but the NID letter fails to adequately describe how that figure was calculated by item. NNSA generally explains that the total “amount was calculated using the Contractor’s rework logs as submitted to NNSA for discrete work, along with estimated material and overhead costs based on reasonable assumptions for the Contractor’s basis of estimate (BOE) and actual cost experience.” NID at 5. This vague explanation is not adequate under FAR 42.801(c)(3); NNSA is legally obligated to identify each cost item included in the total amount it intends to disallow.

By withholding this information, NNSA has frustrated MOX Services’ ability to adequately respond to the NID. Because NNSA has not identified the specific costs it intends to disallow, MOX Services cannot determine what electrical rework activities NNSA finds objectionable. To the extent you continue to believe that the cost of electrical rework is unallowable, MOX Services requests that you promptly provide sufficient information to link the specific costs items you intend to disallow with the specific work activities that you claim were performed without following QA procedures.

The remainder of this letter sets forth MOX Services’ written response to the NID in accordance with FAR 52.242-1(a)(2), based on the limited information NNSA has provided. However, MOX Services reserves the right to submit a supplemental response to address any further information it receives from NNSA regarding the specific cost items NNSA intends to disallow.

B. Non-Compliance With QA Procedures Is Not A Sufficient Basis To Disallow Costs Incurred For Rework

NNSA contends that the rework costs were unreasonable under FAR 31.201-3 because MOX Services knew or should have known that its non-compliance with QA procedures would require corrective action. According to NNSA, “[n]o ‘prudent person in the conduct of competitive business’ would develop detailed and stringent construction installation procedures for a nuclear facility, then fail to follow such procedures, perform unsatisfactory work, and thereafter remove and replace that work and expect such rework costs to be at the expense of the Government.” NID at 4 (citing FAR 31.201-3(a)). NNSA further asserts “the costs of repairs, removal, replacement, and other associated work attributable to the failure to follow such procedures are not the types of cost ‘generally recognized as ordinary and necessary’ to perform the contract.” Id. (citing FAR 31.201-3(b)). MOX Services disagrees with your legal determination of allowability for several reasons.



DCS-DOE-005641

26 April 2017

Page 3 of 6

First, the cost of rework is expressly allowable under Clause H.14(b) of the contract. That clause specifically recognizes the allowability of costs incurred for the “correction or revision of any errors or deficiencies in the designs, drawings and other services furnished under this contract, and making any necessary replacements.” The clause does not preclude the recovery of costs incurred to correct errors or deficiencies in work if those errors or deficiencies were the result of non-compliance with QA procedures. Indeed, it is often the case that the correction, revision or replacement of previously installed work must be performed when QA procedures are not followed. Even the contractual requirements that govern MOX Services’ QA Plan contemplate that there will be situations where corrective actions must be taken to address “failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances.” 10 C.F.R. Part 50, Appendix B, § XVI (Corrective Action). Nothing in the contract generally, or in the QA Plan requirements specifically, suggest that costs incurred to correct errors or deficiencies in work are per se unreasonable when QA procedures are not followed. Thus, non-compliance with QA procedures cannot, on its own, establish a sufficient basis to disallow costs incurred for rework.

Second, NNSA’s determination of allowability is flawed because it does not consider FAR 31.205-26, which provides that the cost of defective work shall be considered when computing material costs¹. NNSA’s exclusive reliance on the general cost reasonableness principles set forth in FAR 31.201-3 is misplaced. The determination of allowability must be based on FAR 31.205-26 because that clause more specifically deals with the allowability of costs for defective work². FAR 31.205-26 expressly recognizes the allowability of such costs, which undermines your conclusion that the rework costs at issue are not “generally recognized as ordinary and necessary.” Rework costs incurred to address defective work are more than just “generally recognized as ordinary and necessary,” they are expressly recognized as reasonable and allowable costs under the FAR.

Third, the Court of Federal Claims and the Boards of Contract Appeals have uniformly recognized that the cost of defective work is recoverable under a cost-type contract. See, e.g., *Best Foam Fabricators v. United States*, 38 Fed. Cl. 627, 640-641 (1997) (collecting authorities). Pursuant to this long line of authority, the cost of defective work is recoverable, “even if some [work was] shown not to be in strict compliance with all of the contract specifications, unless the government establishe[s] that any defects resulted from [the contractor’s] gross disregard of its contractual obligations or that any defects are so extensive as to render [the contractor’s] costs unreasonable.” *Id.* at 641. These cases contradict NNSA’s legal determination that rework costs may be disallowed for mere non-compliance with QA procedures where there is no finding that MOX Services had a gross disregard for its contractual obligations.

Fourth, the contract provides in Clause H.14(c) that the cost of rework may be disallowed if the rework was:

¹ Clause H.14(b) states that the allowability of costs incurred for the correction, revision or replacement of defective work “shall be determined as provided in the clause of this contract entitled ‘Allowable Costs and Payment’, DEAR 952.216-7 Alternate II, and FAR 52.216-7.” FAR 52.216-7(a) directs the contracting officer to look to the cost principles in FAR subpart 31.2 to determine whether costs incurred are allowable.

² FAR 31.204(d) provides that “the determination of allowability shall be based on the guidance contained in the subsection that most specifically deals with, or best captures the essential nature of, the cost at issue.”

DCS-DOE-005641
26 April 2017
Page 4 of 6

"[D]ue to fraud, lack of good faith, or willful misconduct on the part of any of the Contractor's directors or officers, or on the part of any of the Contractor's managers, superintendents, or other equivalent representatives, who have supervision or direction of (1) all or substantially all of the Contractor's business, or (2) all or substantially all of the Contractor's operations at the location where this contract is being performed."

NNSA does not cite this clause in the NID because, as mentioned previously, NNSA does not allege that the rework costs at issue were due to fraud, lack of good faith, or willful misconduct. Nevertheless, this clause demonstrates that the parties understood how to allocate the risks associated with the cost of rework and intended to only preclude the recovery of an extremely narrow category of rework costs that are due to "fraud, lack of good faith, or willful misconduct." If NNSA thought during contract formation that rework costs should be unallowable if caused by non-compliance with QA procedures, it could have easily sought to add that specific exclusion to Clause H.14(c). The absence of any language in Clause H.14(c) that precludes recovery of rework costs incurred as a result of QA non-compliance further undercuts NNSA's position.

In sum, it is clear that NNSA is not contractually entitled to disallow the electrical rework costs incurred for its stated reason, i.e., that MOX Services did not follow its QA procedures. To disallow costs incurred for rework, NNSA must show that MOX Services intentionally disregarded project requirements. NNSA has not made this showing with respect to the electrical rework at issue.

C. NNSA Has Not Shown That MOX Services Intentionally Disregarded Project Requirements

The NID does not explain specifically how NNSA calculated the \$526,895 in costs it intends to disallow. It is therefore impossible for MOX Services to determine precisely what electrical rework is at issue. Nevertheless, it appears that NNSA's calculation relied on its prior identification of NCRs and CRs related to electrical work in 8 specific MFFF rooms³. NID at 3. Based upon those NCRs and CRs and NNSA's assessment thereof, you concluded that "the Contractor performed critical nuclear construction work without following its own procedures." Id. However, the NID does not claim that the NCRs and CRs were the result of intentionally ignoring project requirements and there is no credible evidence that supports such a conclusion.

The NNSA Assessment Report identified seven total NRCs and CRs related to electrical construction that "may have been the result of intentionally ignoring a project requirement." The following NRCs and CRs were identified:

³ The NID states that NNSA identified 4 NCRs and 2 CRs, but the NNSA Assessment Report identified 5 NCRs and 2 CRs. This response addresses all 5 NCRs identified in the NNSA Assessment Report because it is unclear whether the NNSA intended to omit reference to one of the specific NCRs in the NID.



DCS-DOE-005641

26 April 2017

Page 5 of 6

	Date	Document Number	Summary
1.	10/23/2014	NCR-14-5877	Ground down sides of cable tray to install
2.	12/18/2013	NCR-13-5403	2/c#10 AWG installed rather than 3/C #10 AWG
3.	4/17/2014	NCR-14-5567	Failure to torque batter rack bolts – was this intentional?
4.	10/29/2013	NCR-13-5318	Supports installed with inadequate inspection – rooms B-210/211
5.	4/3/2013	NCR-13-4983	Cable pulls with incorrect tension limits
6.	8/21/2013	CR-13-349	Cable pulls without knowing tension limit
7.	3/1/2014	CR-14-026	Installing conduit without an approved work package

NNSA's Assessment Report did not conclude that Item #3 (NCR-14-5567) or Item #4 (NCR-13-5318) were the result of intentionally ignoring project requirements. Thus, it is entirely inappropriate for NNSA to disallow the cost of electrical rework related to those specific NCRs or to broadly disallow rework costs in the MFFF rooms associated with those NCRs.

Further, with respect to the remaining five NCRs and CRs identified (Item Nos. 1, 2, 5, 6, and 7), there is no credible evidence to support NNSA's assessment that the work was "completed with the motivation of 'pressure to meet goals.'" As you know, MOX Services conducted an extensive investigation into the electrical rework allegation that included interviews with forty-six individuals that were knowledgeable about electrical commodity installation during the relevant timeframe. That investigation did not substantiate any improper installation and removal of electrical work and it specifically refuted the conclusion that the NCRs and CRs identified were caused by a motivation to meet project goals. See DCS-DOE-004858 at 6-7.

In contrast to MOX Services' thorough investigation, NNSA conducted a limited investigation that involved interviews with just seven individuals. The majority of the interviewees (4 of 7) either (1) did not agree that the work related to the NCRs or CRs was performed with knowledge that it did not meet project requirements; or (2) were not even familiar with the work at issue. Although the remaining three interviewees appear to have indicated that they believed some of the NCRs or CRs were the result of intentionally ignoring project requirements, their answers were vague and unsupported.

When asked whether they believed that any of the NCRs or CRs involved the performance of installations knowing they did not meet project requirements, those three interviewees responded as follows (according to the interviewer's notes):

- E3: Yes. Mostly, these issues (in the NCR and CRs) are a thing of the past.
- E4: Yes. Number 1 and 7.
- E6: Yes. The ones about cable and cable tray.

DCS-DOE-005641

26 April 2017

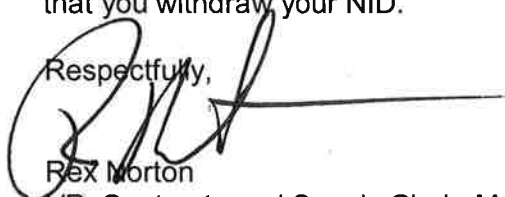
Page 6 of 6

Based on these three responses, it is unclear how NNSA could possibly leap to the general conclusion that "five of the seven items [1, 2, 5, 6 and 7] were completed with the motivation of 'pressure to meet goals.'" First, it is not clear if any of these interviewees were directly involved in the work that resulted in the issuance of the NCRs or CRs identified. Second, in the case of E3 and E6, NNSA did not even clarify which specific NCRs or CRs the interviewees intended to reference. Third, NNSA failed to ask the interviewees to provide any specific information that could support their belief that the NCRs or CRs were the result of intentionally ignoring project requirements. Thus, NNSA's broad conclusion that Item Nos. 1, 2, 5, 6 and 7 were completed with the motivation of "pressure to meet goals" is insufficiently supported and NNSA's reliance on this assessment to support its NID is deeply flawed.

D. Conclusion

The NID does not comply with FAR 42.801 because NNSA has not identified the costs it intends to disallow by item, nor has NNSA adequately described how those cost items relate to the alleged violations of QA procedures. Further, NNSA has not established that MOX Services intentionally ignored project requirements when it performed electrical work associated with the NCRs or CRs identified in the NNSA Assessment Report. At most, NNSA has only established that certain electrical work was performed without strictly adhering to QA procedures. However, non-compliance with QA procedures is not a sufficient basis on its own to disallow any of the electrical rework costs associated with the NCRs or CRs identified. Accordingly, MOX Services requests that you withdraw your NID.

Respectfully,



Rex Morton

VP, Contracts and Supply Chain Management
CBI AREVA MOX Services, LLC

cc: NNSA

S. Cannon

M. Noone

S. Hamlett

A. Rischbieter

MOXPMODCA@srs.gov

MOX

D. Del Vecchio

G. Rousseau

K. Saunders

L. Wylie

P. Whittingham

W. Wood

D. Ivey

R. Keeler

EDMS

EXHIBIT F



Department of Energy
National Nuclear Security Administration
MOX Project Management Office
Savannah River Site
P.O. Box A
Aiken, South Carolina 29802



May 31, 2017

Mr. Rex Norton
Vice President, Contracts and Supply Chain Management
CB&I AREVA MOX Services, LLC
Savannah River Site
P.O. Box 7097
Aiken, South Carolina 29804-7097

SUBJECT: Contract DE-AC02-99CH10888, MOX Fuel Fabrication Facility Project, Notice of Intent to Disallow Costs for Certain Electrical Commodities; Response to DCS-DOE-005641

REFERENCE: (1) MOX Services letter DCS-DOE-005641, dated April 26, 2017
(2) NNSA Letter NA-APM-17-0159, dated March 29, 2017

Dear Mr. Norton:

In the letter at Reference (1), MOX Services asserts that NNSA's notice of intent to disallow (at Reference (2)) (the "Notice") "is procedurally defective under FAR 42.801 because NNSA has not provided sufficient information regarding the costs it intends to disallow." Upon a further review of the facts and record herein, NNSA disagrees with MOX Services' assertion. Specifically, Federal Acquisition Regulation (FAR) 42.801(c)(3) requires a notice of intent to disallow to "Describe the costs to be disallowed, including estimated dollar value by item and applicable time periods, and state the reasons for the intended disallowance". NNSA identified in Reference (2) that the Notice was directed at the improper installation of "certain electrical commodities" during construction of the MFFF. MOX Services is aware that construction of the MFFF is applicable only to Contract Line Item 0002.¹ Thus, by identifying the nature of the work, NNSA also identified the estimated dollar value by item (i.e., Contract Line Item 0002).

¹ Moreover, the nature of the work in question is not within the scope of Contract Line Item 0001, which is the only other Contract Line Item that has been exercised. This is further supported by the fact that during the time period specified in the notice of intent to disallow (i.e., October 2014 through November 2015), MOX Services did not include substantive billings to Contract Line Items other than Contract Line Item 0002.

R. Norton

2

May 31, 2017

Accordingly, NNSA's Notice included the detail required by FAR 42.801(c)(3). Furthermore, NNSA exceeded the minimum requirements at 42.801(c)(3) by including the specific Non-conformance Report (NCR) and Condition Report (CR) numbers related to the costs in question. This means that MOX Services should be able to calculate the costs in question with a high degree of certainty.

Nonetheless, in the interest of good faith, NNSA provides additional substantive data at Enclosure (1) for MOX Services' consideration. Due to the lack of detail provided by MOX Services related to the cited CRs and NCRs, NNSA was compelled to make certain assumptions to arrive at a reasonable estimate. MOX Services is therefore directed to provide additional cost data related to this matter, if any, should it disagree with the NNSA estimate. Such additional data should be submitted to the Contracting Officer no later than 12 June 2017.

If you have any questions, please contact the undersigned at 803-952-2020.

Sincerely,



Robert S. Hamlett
Administrative Contracting Officer

with express permission, signing for:
Lance Nyman
Lead Administrative Contracting Officer

NA-APM-17-0203

Enclosure: (1) Allegation Cost Estimate, dated December 22, 2016

cc:

S. Cannon, NNSA
L. Nyman NNSA
S. Hamlett, NNSA
A. Rischbieter, NNSA
M. Noone, NNSA
D. Del Vecchio, MOX Services
G. Rousseau, MOX Services
P. Whittingham, MOX Services

K. Saunders, MOX Services
R. Ridgeway, MOX Services
L. Wylie, MOX Services
W. Wood, MOX Services
D. Ivey, MOX Services
R. Keeler, MOX Services
MOXPMODCA@srs.gov

12/22/2016

Allegation Cost Estimate (\$526,895)

Approach:

Identify Labor Hours: (4567 hours)

MOX Services maintains several Rework Logs. These logs are required to be maintained per a desktop procedure for major commodities. This log documents the hours spent performing rework. The information used in the rework logs comes from 'labor reports' that are completed by electrician supervisors. This information is required to be reviewed by the Area Project Manager to take required corrective action.

NNSA reviewed the rework log for electrical (ref. 1) and made a determination of what rework activities was a result of the allegation. The criteria that were required to be met were one of the following:

1. The rework resulted from work to install permanent main power equipment. This work was performed to meet a milestone to provide temporary power for the MOX facility.
2. This rework was identified as 'BSR1 rework.' All of this work was performed to support the same milestone in 1, above.

The total hours identified was 4567 hours.

Sensitivity – Likely conservatism because no rework records were kept before October, 2014. Also, MOX Services did not consider an activity to be rework unless it was rejected during a QC acceptance inspection. It is likely that some rework occurred before this stage of installation.

Identify Labor Cost: (\$205,515)

MOX Services vouchers show that the hourly cost to the Government for an Electrician Journeyman is \$45/hour. Therefore, the cost associated with the allegation for direct labor is: 4567 hours * \$45/labor hour = \$205,515.

Sensitivity – Conservative because on journeyman labor rate is used. Foreman rates are not averaged into the labor rate even though they charge their time to the correction of rework.

Identify Material Cost: (\$183,685)

The rework logs do not provide sufficient detail to estimate the cost of materials that are involved with rework. It is the experience of the author that reworked materials are typically discarded.

The Basis of Estimate (BOE) for Management Area 17 (ref. 3), Electrical, provides the estimated amount of labor hours and Other Direct Costs (ODCs) needed to complete the entire electrical work at the MOX facility. ODCs reflect the cost of materials that must be installed.

From the BOE, a ratio can be developed between the total cost of materials and the total number of labor hours.

$$\$97,175,630 \text{ (ODC)} / 2,415,903 \text{ (labor hours)} = 40.22 \text{ \$/LH}$$

Therefore, the ODC corresponding to the allegation-related labor hours would be: 4567*40.22 = \$183,685.

Sensitivity: unknown.

Level of Effort: (\$137,695)

The level of effort to support construction labor costs was estimated from monthly summary data from the 'MOX Fuel Fabrication Facility Monthly Status Report,' November 2014. This data reflects the time period that the allegation was submitted. The discreet cost for the project to date was \$2,512,660 and the LOE for this same time

12/22/2016

period was \$1,700,800. Therefore, the ratio of LOE to discrete construction work provides an estimate of the amount of overhead to support construction activities.

From this ratio, the cost impact from the allegation is estimated to be: $\$205,515 \times 0.67 = \$137,695$.

Sensitivity: unknown.

Total Cost Impact:

$\$205,515 + \$183,685 + \$137,695 = \$526,895$.

References (attached):

1. Electrical Rework Log, October 12, 2014 - Augusta 10, 2016.
2. Basis of Estimate, MA 17 Various FAs/CAs, Electrical, approved September 28, 2012.
3. MFFF Monthly Status Report, pages 37&38, November 2014

EXHIBIT G



Mr. Lance Nyman
Lead Contracting Officer
US Department of Energy, NNSA
Savannah River Site Office
P.O. Box A
Aiken, SC 29802

12 June 2017

DCS-DOE-005685
Response Required: Yes
Response Date: 13 JULY 17

SUBJECT: Contract No. DE-AC02-99CH10888, MOX Fuel Fabrication Facility Project, Responses to NNSA Notice of Intent to Disallow

References: NNSA Letter NA-APM-17-0203 Notice of Intent to Disallow Costs for Certain Electrical Commodities; Response to DCS-DOE-005641

Dear Mr. Nyman:

This correspondence is in response to the National Nuclear Security Administration's (NNSA) letter dated May 31, 2017, which addressed CB&I AREVA MOX Services, LLC's ("MOX Services") contention that the Notice of Intent to Disallow (NID), issued on March 29, 2017, was procedurally defective under FAR 42.801. NNSA asserts that the NID was not procedurally defective for failing to adequately identify the disallowed costs. Nevertheless, NNSA provided additional data to show how NNSA used "certain assumptions to arrive at a reasonable estimate" of the electrical rework costs it intends to disallow. NNSA directed MOX Services to submit additional information by June 12, 2017 if it disagreed with the NNSA estimate. For the reasons set forth below, MOX Services disagrees with the NNSA estimate and hereby submits its response to that additional information.

A. The NNSA Estimate Does Not Cure The NID's Procedural Defects

After reviewing the NNSA estimate, MOX Services continues to dispute that you have fully satisfied your obligation under FAR 42.801(c)(3) to identify the costs to be disallowed **by item**. The NNSA estimate explains that rework logs were reviewed to identify labor hours that met one of the following criteria:

1. The rework resulted from work to install permanent main power equipment. This work was performed to meet a milestone to provide temporary power for the MOX facility.
2. This rework was identified as 'BSR1 rework. All of this work was performed to support the same milestone in 1, above.

Other than generally describing the criteria used to identify allegedly improper rework, NNSA fails to specifically identify the electrical rework items that were identified based on those criteria. MOX Services has attempted to independently identify the rework items that form the basis of the NID. Although MOX Services believes that it has identified certain rework items that are the subject of the NID, it still cannot completely reconstruct how NNSA identified a total of 4,567 hours from the rework logs using the two criteria above. To ensure that the parties have a mutual understanding of the specific costs NNSA intends to disallow, as is contemplated under FAR 48.801 and FAR 52.242-1, MOX Services respectfully requests that you identify all items

DCS-DOE-005685

12 June 2017

Page 2 of 3

on the rework log that were used by NNSA to derive the relevant labor hour estimate. Absent that information, the NID fails to satisfy the procedural requirements of FAR 48.801.¹

B. The NNSA Estimate Underscores The NID's Legal Flaws

Based on the criteria used to develop the NNSA estimate, it appears as though NNSA identified mostly labor hours associated with rework of cable trays and cable tray supports on the Rework Log during the relevant time period that supported the accomplishment of Milestone 1. According to NNSA, the cost of these rework items should be disallowed because certain Non-Conformance Reports (NCRs) and Condition Reports (CRs) show that the original work was not performed in accordance with Quality Assurance (QA) procedures. The NCRs and CRs, however, do not support NNSA's central contention that the rework was done for an improper purpose, or that MOX Services "knew or should have known" that the work would need to be corrected at the time it was installed. Thus, NNSA cannot rely solely on those NCRs and CRs to identify allegedly improper rework because there is no basis to conclude that the rework in question is categorically different from all other rework that is generally allowable.

It appears that NNSA's misguided reliance on NCRs to disallow rework costs may have been prompted by an inspection conducted by the Office of Inspector General (OIG). The OIG Report, dated May 19, 2017, suggested that NCRs "may be useful to evaluate some of the causes of rework" and could "serve as a valuable data point for NNSA when analyzing construction rework" or "identify[ing] rework trends." OIG Report at 3. During the course of the IG inspection, you apparently informed the IG of the very flaw MOX Services identified with respect to your exclusive reliance on NCRs to develop an estimate of the disallowed labor costs. As the OIG Report recounts:

Per the Contracting Officer, due to the large volume of relevant data available but not yet organized, ***the overlapping nature of acceptable rework versus the allegation***, and the significant level of complexity of the issue generally, it may take some time for NNSA to develop a reasonably accurate estimate of any unreasonable incurred costs related to the allegation that would be subject to disallowance.

OIG Report at 3 (emphasis added). In your correspondence with the IG, it appears you correctly understood that NCRs generally concern "acceptable rework" and therefore additional evidence of impropriety or wrongdoing would be needed "to develop a reasonably accurate estimate of any unreasonable incurred costs related to the allegation." OIG Report at 3.

The problem with the NID, however, is that NNSA cited no credible evidence of wrongdoing to support its determination of unallowability. The NID cited only the NCRs and CRs and further asserted that "NNSA substantiated the allegation," which was that "the Contractor performed

¹ Your assertion that NNSA satisfied FAR 48.801(c)(3) because the disallowed costs fall within Contract Line Item Number (CLIN) 0002 is not well taken. The notion that the government can meet its obligation to identify the specific costs to be disallowed "by item" by simply referencing a multi-billion dollar CLIN, is not reasonable or consistent with the intent of FAR 48.801(c)(3).



DCS-DOE-005685

12 June 2017

Page 3 of 3

critical nuclear construction work **without following its own procedures.**" NID at 3 (emphasis added). NNSA **never** substantiated an allegation that MOX Services "knew or should have known" that it did not follow QA procedures, or that it "knew or should have known" that rework would be required.

At bottom, it is clear that NNSA issued an NID based solely on NCRs and CRs, which show nothing more than that certain electrical work was not performed in accordance with QA procedures. As MOX Services' initial response to the NID explained, non-compliance with QA procedures is not valid legal basis to disallow rework costs. Rework costs are allowable and expected on a large-scale nuclear construction project and NNSA has not established that the disallowed rework costs are any different from all other rework which is generally allowable. For that reason, NNSA's estimate of the disallowed costs is legally flawed and the NID should be withdrawn in its entirety.

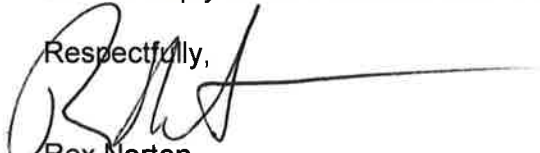
C. NNSA Has No Basis To Disallow Level of Effort Costs

The NNSA estimate includes the purported level of effort (LOE) "cost impact from the allegation." NNSA intends to disallow \$137,695 in LOE costs based on the ratio of LOE to discrete labor in November 2014. LOE is a direct charge to the project and is not associated with any overhead rates. Even assuming, arguendo, that NNSA is entitled to disallow the labor costs in question, there is no basis to disallow LOE as a proportion of discrete labor. NNSA has presented no evidence that LOE would have been lower in the absence of the allegedly improper rework. Because there is no causal connection between the estimated LOE and the rework at issue, LOE should not be included at all in the total disallowed costs.

D. Conclusion

The supplemental information provided by NNSA does not cure the procedural defects in the NID because NNSA has still not provided MOX Services with an estimate of the costs at issue by item. The NNSA estimate further demonstrates that the legal and factual underpinning of the NID is deeply flawed. NNSA should withdraw the NID.

Respectfully,


Rex Norton
VP, Contracts and Supply Chain Management
CBI AREVA MOX Services, LLC

cc: NNSA

S. Cannon

M. Noone

S. Hamlett

A. Rischbieter

MOXPMODCA@srs.gov

MOX

D. Del Vecchio

G. Rousseau

K. Saunders

L. Wylie

P. Whittingham

MOX

W. Wood

D. Ivey

R. Keeler

EDMS

EXHIBIT H



**Department of Energy
National Nuclear Security Administration
MOX Project Management Office
Savannah River Site
P.O. Box A
Aiken, South Carolina 29802**



December 20, 2018

Mr. Rex Norton
Vice President, Contracts and Supply Chain Management
CB&I AREVA MOX Services, LLC
Savannah River Site
P.O. Box 7097
Aiken, SC 29804-7097

SUBJECT: Contract DE-AC02-99CH10888, Contracting Officer's Final Decision (COFD) – Disallowance of Costs for Electrical Rework (Addendum)

Reference: (1) NNSA Letter NA-APM-18-0217, dated October 25, 2018

Dear Mr. Norton:

In the Contracting Officer's Final Decision (COFD) for certain electrical rework costs (Reference 1), National Nuclear Security Administration ("NNSA") inadvertently omitted standard verbiage for debt collections. This letter is an amendment to the COFD and incorporates the following:

In accordance with FAR Subpart 33.2 -- Disputes and Appeals, this matter is considered an issue in dispute. This letter constitutes the Contracting Officer's Final Decision that the amount of \$526,895¹ is determined unallowable and is considered a debt due to the Government in accordance with the Contract terms. Repayment of the balance is due in full to NNSA within 30 calendar days of the date of this COFD addendum (i.e., January 22, 2019). In accordance with FAR 32.604, the Contractor is notified of the following:

1. The Contractor may contact the undersigned if it believes the debt is invalid or the amount is incorrect.
2. If the Contractor agrees the debt is valid, remit a check payable to the payment office annotated with the Contract number along with a copy of this letter to:

United States Department of Energy
Oak Ridge Office
Oak Ridge Financial Service Center
200 Administration Road
Oak Ridge, TN 37830

¹ NNSA letter NA-APM-17-0203 dated May 31, 2017 provides detailed breakdown of costs to be disallowed.

Also, please provide the undersigned a copy of the check for the Contract file.

3. Any portion of the \$526,895 not paid within 30 calendar days from the date of this letter will bear interest. Interest shall be computed from the date of this demand for payment until full repayment by the Contractor. The interest rate is provided in 41 U.S.C. Section 7109, which is applicable to the period in which the amount becomes due, and then at the rate applicable for each six-month period as established by the Secretary of Treasury until the entire amount is paid.
4. The Government may initiate procedures, in accordance with the applicable statutory and regulatory requirements, to offset the debt against any payments otherwise due the contractor.
5. The amount due is subject to administrative charges in accordance with the requirements of 31 U.S.C. Section 3717(e) and the Debt Collection Improvement Act of 1996.
6. The contractor may submit a request for installment payment of deferment of collection if immediate payment is not practicable or if the actual amount is disputed

If you have any questions or comments, please contact the undersigned at 803-952-2020.

Sincerely,



Lance Nyman
Terminating Contracting Officer/
Lead Administrative Contracting Officer

NA-APM-19-0031

cc:

S. Cannon, NA-APM-1.4
S. Hamlett, NA-APM-1.4
A. Rischbieter, NA-APM-1.4
R. Leugemors, NA-APM-1.4
K. Buchanan, NA-APM-1.4
M.E. Noone, NNSA Counsel
D. Del Vecchio, MOX Services
G. Rousseau, MOX Services
P. Whittingham, MOX Services
K. Saunders, MOX Services
R. Ridgeway, MOX Services
MOXPMODCA@srs.gov

EXHIBIT I



Mr. Lance Nyman
Lead Administrative Contracting Officer
US Department of Energy, NNSA
Savannah River Site Office
P.O. Box A
Aiken, SC 29802

10 January 2019

DCS-DOE-006187

Response Required: Yes

Response Required By: 18 January 2019

Subject: **Contract No. DE-AC02-99CH10888, MOX Fuel Fabrication Facility, Request for Deferment of the Debt Assessed by NNSA for Disallowed Electrical Rework Costs**

References: (1) NNSA Letter NA-APM-18-0217, Disallowance of Electrical Rework Costs (COFD), dated October 25, 2018
(2) NNSA Letter NA-APM-19-0031, Disallowance of Electrical Rework Costs (COFD Addendum), dated December 20, 2018
(3) MOX Services Letter DCS-DOE-005641, dated April 26, 2017

Dear Mr. Nyman:

MOX Services, LLC (MOX Services) writes in response to the Reference (2) letter and your previous correspondence (Reference (1)) regarding NNSA's disallowance of \$526,895 in costs for electrical rework performed under Contract DE-AC02-99CH1088. On October 25, 2018, you issued a COFD (Reference (1)) disallowing the electrical rework costs. In the Reference (2) COFD Addendum, you notified MOX Services that the disallowed amount is considered a debt to the Government and must be repaid by January 22, 2019. By this letter, under FAR 31.607-2 MOX Services respectfully requests that NNSA defer collection on these costs during the pendency of Court of Federal Claims Case No. 16-950, both because MOX Services disputes its liability for these costs and because collecting the debt will impose a financial hardship on the contractor.

The electrical rework costs at issue relate to work performed in fiscal year 2015. The allowability of these costs was initially questioned in a referral to the DOE Office of Inspector General, and the costs were specifically assessed by both NNSA and MOX Services. As set forth in an April 26, 2017, letter (Reference (3)) in response to NNSA's notice of intent to disallow, MOX Services disputes NNSA's entitlement to repayment of the entire amount disallowed in the COFD.

MOX Services is expected to soon file an appeal of the COFD in the United States Court of Federal Claims, and we expect that complaint will be consolidated with the other pending cases between the parties (COFC Case No. 16-950). Indeed, the question of whether this dispute is subject to the parties' tolling agreement has already been before the Court as part of that case. COFC Case No. 16-950 (Dkt. Nos. 138-141).

DCS-DOE-006187

10 January 2019

Page 2 of 2

Under FAR 32.607-2, in evaluating MOX Services' deferment request, the Contracting Officer may consider several factors concerning the contractor including: (i) financial condition; (ii) contract backlog; (iii) project cash receipts and requirements; (iv) the feasibility of immediate payment of the debt; and (iv) the probable effect on operations of immediate payment of the debt in full. FAR 32.607-2(a)(3).¹ Under the circumstances, these factors fully support MOX Services' deferment request.

MOX Services is a single-purpose entity formed to perform the Contract on a cost-reimbursement basis. As you know, the Contract was terminated for convenience in October 2018, and MOX Services is in the process of winding down operations pursuant to NNSA's direction. MOX Services has received essentially no additional fee on the Contract since 2013, and it has no other federal contracts or revenue sources to generate additional revenues. Moreover, NNSA has refused to defer the collection of other disputed debts assessed on the Contract, including over \$34 million associated with costs disallowed in connection with the 2010 Incurred Cost Audit. As a result of these actions, the Government has severely eroded MOX Services financial condition, and a further, needless extraction of well over \$500,000 will only exacerbate the situation. Last, it is in neither parties' interest to impose an unnecessary financial burden on MOX Services as the contractor endeavors to wind down operations with the aim of timely concluding the termination.

Based on the foregoing, it is appropriate for NNSA to defer its collection of the disputed debt until litigation regarding the COFD is resolved. Indeed, the Court presiding over the consolidated litigation between the parties previously expressed its view with respect to the disallowed costs that stemmed from the FY 2010 Incurred Cost Audit that "this case appears to present an ideal situation for a deferment agreement." *CB&I AREVA MOX Services v. United States*, Case No. 17-cv-02017-TCW, Dkt. No. 22 at 2. So too here, MOX Services respectfully submits deferment of the disputed electrical rework debt is warranted under FAR 32.607-2.

Sincerely,



Rex Norton

VP Termination

MOX Services, LLC

cc: NNSA
S. Cannon
S. Hamlett
A. Rischbieter
moxpmodca@srs.gov

MOX
D. Del Vecchio
G. Rousseau
R. Norton
L. Wylie
K. Saunders
EDMS

¹ Where the debt is in dispute under the Contract Disputes Act, the contractor need only address the "financial condition" criterion. FAR 32.607-2(a)(1). As MOX Services has yet had time to appeal the December 20, 2018, COFD with Addendum, this letter addresses all of the relevant factors.